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Canada Royal Commission on
employment of firemen on diesel
locomotives in freight and yard service
on the Canadian Pacific Railway
Proceedings. 1957
no 4-6

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**ROYAL COMMISSION ON EMPLOYMENT OF FIREMEN
ON DIESEL LOCOMOTIVES IN FREIGHT AND YARD
SERVICE ON THE CANADIAN PACIFIC RAILWAY**

(7)

4-6

PROCEEDINGS



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Hon. Mr. Martineau

ERRATA

Volume One

Note: Please make the following corrections
on your copy of transcript, Volume 1.

Page 20, line 16 - "essentially" should read "essential"

Page 20, line 20 - "minimum" should read "synonym"

Page 24, line 21 - Add "on passenger trains" to sentence
ending "whether steam or diesel"

Page 66, line 19 - "incapable!" should read "capable"

Page 68, line 26 - "because" should read "such"

Page 103, line 24 - "and route" should read "en route"

Page 104, line 7 - "less" should read "some"

Page 128, line 9 - "Grand Bend" should read
"North Bend"

Page 131, line 8 - "sketch on the main line"
should read "South main line"

Page 131, line 11 - "tracked together" should read
"tractive effort"

ERRATA

Volume TWO

Note: Please make the following corrections on your copy of transcript, Volume 2.

Page 163, line 14 - "47 million" should read "47 per cent".

Page 168, line 6 - "out of which" should read "At which".

Page 178, line 3 - "freight" should read "average".

Page 182, line 20 - "logical changes" should read "technological changes".

Page 184, line 26 - "statement" should read "surprise"

Page 193, lines 27
and 28 - "which is one that is" should read "of which one is"

Page 197, line 17 - "1945" should read "1955".

Page 199, line 10 - "after what" should read "for what".

Page 199, line 11 - "into direction" should read "introduction"

Page 200, lines 19
and 20 - "just in the job of kicking on a load to test the general" should read "not in the job of switching on a lead but in general".

Page 200, line 23 }
line 27 } "dragged" should read "dropped"

Page 224, line 28 }
Page 225, line 16 }
Page 225, line 30 }
Page 226, line 20 } - "proprietary" should read
Page 226, line 23 } "preparatory"
Page 229, line 19 }
Page 230, line 6 }

Page 251, line 11 - "buoyancies" should read "bulletins"

Pages 254 and 255 are reversed

Page 271, line 12 - "small" should read "symbol"

Page 278, line 2 - "\$550.28" should read "\$557.28"

I N D E X

WITNESSES

SHEPP, John, Exam. by Mr. Sinclair	420
---	-----

EXHIBITS

No. 28 - Summary of yard locomotive performance	420
29 - Photo, wood-burning locomotive	451
30 - Photo, Engine 6050	452
31 - Photo, Engine 6951	455
32 - Photo, Engine 6861	456
33 - Photo, Engine 6607	466
34 - Photo, Engine 7000	470
35 - Photo, diesel switcher 7010	471
35A - Photo, Alco diesel switcher	473
36 - Letter, Dec.30, 1953, C.P.R. to Union	486
37 - Observations of actions of firemen ...	524
38 - Statement of discipline and train accidents, Vancouver, 1956	543

ROYAL COMMISSION ON EMPLOYMENT OF
FIREMEN ON DIESEL LOCOMOTIVES IN
FREIGHT AND YARD SERVICE ON THE
CANADIAN PACIFIC RAILWAY

Proceedings of public
hearing held at Ottawa,
Ontario, Thursday, March 7,
1957

PRESENT:

Hon. R. L. Kellock	Chairman
Hon. C. C. McLaurin	Member
Hon. Jean Martineau	Member
Douglas M. Fraser	Secretary
A. R. Winship	Asst. Secretary

APPEARANCES:

D. W. Mundell, Q.C.	Representing the
C.J.A. Hughes, Q.C.	Commission
I. D. Sinclair, Q.C.	Representing the
John Pearson	Canadian Pacific Railway Company
David Lewis	Representing the Brotherhood of Locomotive Firemen and Enginemen

- - - - -

Thursday,
March 7, 1957.

MORNING SESSION

--- The Commission opened at 10.30 a.m.

JOHN SHEPP, recalled,

EXAMINED BY MR. SINCLAIR

Q Mr. Shepp, is there any gauge of yard performance?

A In what respect, sir?

Q To measure the work performed in a yard?

A Yes, there is a record kept.

Q Have you prepared a statement in that connection?

A Yes, I have.

Q The company keeps records, and this is the statement. Have you one there?

A Yes, I have.

MR. SINCLAIR: This is a summary of yard locomotive performance at important terminals, months of June and December, 1956, and consists of two sheets, one for June and one for December.

(EXHIBIT No. 28 - Summary of yard locomotive performance.

BY MR. SINCLAIR:

Q Looking at Exhibit 28, Mr. Shepp, I notice the first column on the left-hand side is headed "terminal" and then there are set out the various yards within that terminal. This exhibit consists of two sheets, the first sheet being for the month of June, 1956 and

the second sheet being for the month of December, 1956; that is correct?

A That is correct, sir.

Q Looking at that, would you please tell the Commission what "total cars handled" means?

A This report is based on the total count of cars arriving, taking a count of one for each car arriving and taking a count of one for each car departing.

Q That is from the individual years?

A From the individual yards, and the total number of yard engine hours is shown in the second column.

Q That is the third column?

A In the third column, pardon me. That is divided into the total number of cars that have arrived and departed and the average number of cars handled per engine hour is reached and is shown in the fourth column.

Q Mr. Shepp, you say a count of one is made for each car entering a yard and a count of one for each car leaving a yard, but cars that come into a yard are moved more often than just to come in and go out, are they not?

A Yes, they are; they are moved, I would say, at least on an average of six to eight times.

Q Six to eight times?

A Before they finally leave the yard.

Q But you could not multiply the total number of cars handled by any movement in the yard to get any representative or realistic measure because they are not moved singly, is that your position?

A That is correct.

Q Looking again at Exhibit 20, would you please just comment on the figures for June, 1956. Is there any particular part that you wish to call to the attention of the Commission?

A Well, yes, looking at the first item we have just discussed, Montreal St. Luc yard, where the preponderance of through traffic is handled and larger cuts of cars are handled in the yard, the average number of cars and the total engine hours are comparatively high as compared to locations that have a considerable amount of industrial work, such as Mile End in the same terminal, where the cars handled per engine hour are reduced to eight.

Q That means that the over-all average for each engine hour and individual yard crew working at Mile End yard, there would be eight cars cleared in and out of the yard?

A That is correct.

Looking further down, and I am still dealing with the month of June, and taking Vancouver,

for example, the Vancouver yard is totally industrial. There is a considerable amount of waterfront work and therefore the cars handled in the Vancouver yard are much lower than even at Mile End?

Q I notice in the case of Hochelaga yard the figure is 19.6; why is that so high?

A At that particular point there is a considerable and heavy interchange of grain and oil traffic and for that reason the cars handled per engine hour at that point are higher than they are where there is more industry located.

Q Does that mean that an interchange comes over with a cut of oil cars and they are just picked up and moved and transferred right across the yard?

A That is correct; just one move and transferred to another line.

Q Is there anything else, Mr. Shepp, in connection with June, 1956, you wish to draw to the attention of the Commission?

A No, I might draw attention to Winnipeg where there is a mixture of local, or I should say industrial traffic, transfer traffic and through traffic. Therefore, taking the combined total of all cars handled which only gives us one figure where industrial work and through work is combined, we reach a total of 7.1 cars per engine hour. I should like to say, taking



for example a yard like Winnipeg, there may be some crews that may handle only 12 to 15 cars.

Q On a whole shift?

A On the whole shift, depending on the distance they are required to go place the cars.

Q Would there be any examples like that in Vancouver?

A Yes, there would be locations in Vancouver where a situation like that would occur.

THE CHAIRMAN: How long is a shift?

BY MR. SINCLAIR:

Q How long is a shift?

A Eight hours.

Q Looking at sheet 2, covering December, 1956, the same information is given on sheet 2 of Exhibit 28 as is given on sheet 1, but this is for the month of December. By the way, why did you select June and December?

A Because they are two representative months which are affected by the seasons in terminal operations.

Q One is a summer month and the other is a winter month?

A One is a summer month and the other is a winter month.

Q Is there any comment you would like to make on December 1956 as against June 1956?

A Yes, it will be noted that the total engine

hours in some cases are higher during the winter months because of the inclement weather being experienced which means a lesser number of cars are handled. That is reflected in the statement, particularly at St. Luc, where the average number of cars per engine hour is reduced to 18.9.

Q Vancouver is down from 7.8 to 6.8?

A Vancouver is down from 4.8 to 4.2.

Q The total Vancouver terminals is down from 7.8 to 6.8?

A That is quite correct, that is combining Vancouver and Coquitlam.

Q Mr. Shepp, I have here a description of a yard which reads:

"They are busy places with engines going up and down numerous tracks. all the time, tracks full of cars which have just arrived or are being assembled for trains, and of yardmen and other employees going about their work through day and through night. The need for the most meticulous attention and care is overwhelming if collisions are to be avoided and danger to life minimized.

What comment would you make on that description of a yard in the Canadian Pacific?

A Would you mind reading the last sentence again?

Q I will let you read it.

A (Reads):

"The need for the most meticulous attention and care is overwhelming if collisions are to be avoided and danger to life minimized.

I am sure that was not written by an experienced yardman of any kind.

Q What is your comment on it, no matter who wrote it?

A I quite appreciate that an ordinary layman going into a yard, someone who is not accustomed to the rhythm of motion in a yard, might get such an impression, but certainly not a yardman who has worked in a yard. When he has worked there a short time he becomes accustomed to the normal rhythm in the yard. Certainly there is no evidence of anything like that to my knowledge or from my experience in the yards.

Q What is your comment on the over-all aspect of yard work? You say there is a rhythm in it. Is it orderly or disorderly, what is going on in a yard?

A It is very orderly, very orderly. Each man knows exactly what he is doing. The only confusion that exists in the yard is in the Yardmaster's office, the paper boys.

Q I can assure you this was not written by a yardman. When a yard crew is in a yard are they out there on their own or is there anything else protecting the individual yard crew and its engine and equipment?

A It is the responsibility of a yard crew, a ground crew, as well as the engineer to see that their engine and the cars that they are handling are fully protected from any damage being caused and other yard crews who are working within the same area protect -- yard crews protect against each other. Yesterday we spoke of movements on to a ladder track. Normally in yard operations, if a yard crew is working on a ladder track switching cars there would naturally be a number of loose cars running into different tracks. No other crew would enter that lead without stopping to clear and the foreman consulting with the other foreman so that either one would get into the clear as only one can work.

Q If the yard rhythm breaks or there is some unusual happenstance in a yard, what happens when things like that happen in a yard?

A Naturally everything comes to a stop.

Q Now, that description I put before you used the words "meticulous attention and care". What does "meticulous" mean to you when you hear that?

A Well, "meticulous" is just an ordinary

approved method of working in a yard.

Q Pardon?

A An approved method of working in the yard.

Q That is "meticulous", is it?

A Being common sense, careful and working under approved methods.

Q I am sure that was not what was in the mind of the person who used it in that description.

MR. LEWIS: My learned friend flatters me both in quoting me and in reading my mind so early this morning.

MR. SINCLAIR: Oh, I flatter you. It is very easy, Mr. Lewis.

MR. LEWIS: But then ^{he}/insults me, Mr. Chairman, and I object to either.

THE CHAIRMAN: Well, I knew we would get to the source eventually.

MR. SINCLAIR: Mr. Lewis recognizes the exaggerated words my lord.

MR. LEWIS: I recognize the words.

THE CHAIRMAN: Now we have source. No doubt we will have the occasion later.

BY MR. SINCLAIR:

Q You spoke yesterday of speed in yards, as I recollect your evidence, from one to six miles per hours?

A Yes, that is correct.

Q Is that what the average speed of yard movement has been say in the last ten years, Mr. Shepp?

A No, they were somewhat -- in some cases they were a little faster sometime ago. However, a few years ago the management instituted a campaign to reduce the switching tempo to a slow and steady speed in order to avoid heavy couplings being made, and a general improvement in the operation of yards.

Q Was that campaign successful? Has it been successful from your observation of yard work?

A There has been considerable success but certainly we have not reached the ultimate, the ultimate success that we had hoped to attain and I do believe we will attain. It will improve as it goes along. However, considerable improvement has been made.

THE CHAIRMAN: Would you have the witness explain what he means by "heavy couplings" in the sense in which he used it?

BY MR. SINCLAIR:

Q When you mention a heavy coupling, Mr. Shepp, what do you mean by that?

A Well, more or less in the judgment of ground crews in the speed of the momentum, that they accelerate in their signals which allows a free car to run faster into a track than it normally should. In other words, a coupling of a free car being switched should not be allowed to contact with other cars at a speed greater than

four miles an hour,

THE CHAIRMAN: Now I understand it.

THE WITNESS: In some cases before they were 5 and 6 and 7 miles an hour.

BY MR. SINCLAIR:

Q Are there many cases of running free in a normal yard like that, kicked free or cuts of two or three kicked free?

A Yes, very many.

Q And do yardmen expect that?

A Oh yes, of course.

Q Do they look out for that?

A They certainly do. Yardmen are accustomed to always walk and take up positions on the leads or in between the tracks where they are absolutely free from the danger of being struck by loose cars being switched.

Q And what about stepping over behind cars standing on tracks? What is the practice there?

A Yardmen and all railway employees usually give a car or a number of cars standing in a track -- they give them a wide berth when they are walking around them. so that they can get across in the event of the cars moving as they are crossing.

Q And you mentioned yesterday yardmen being on top for the purpose of giving signals. Have you ever switched from the tops of cars?

A Oh yes, many times.

Q Well now, what about that? Where would they stand and how would they look after themselves in that case?

A They would stand -- as long as their signal is visible to the engineer they would take up a position close to the centre of a car.

Q Yes?

A And never close to the end of a car.

Q What is the closest distance, in your opinion, that you can safely stand on top of a car from its end?

A I would say about six to eight feet from the end.

Q Why is that?

A Well, it gives you room to step back, make two or three steps back in the event of a sudden stop being made.

Q Now, the fact that yardmen are on top of cars, does that have any effect on the giving of signals direct to the engineer?

A No, that is the reason they are on there, so that they can maintain direct communication with the engineer.

Q For instance, if you ride near the end of a car on the top of it is there any advantage in giving a signal direct to the engineer as against giving it to the fireman, for instance?

A Oh yes, you know that your signal is going to be immediately responded to and the advantage is that you are not going to make a heavy coupling or you are going to make a stop at the desired point at which you wish to make a stop.

Q When you give a signal to stop, for instance, when you are near the end of the car, do you brace yourself? Do you shift your weight? Is there any technique?

A Oh yes, you brace yourself. You are looking for the stop.

Q Mr. Shepp, in your opinion what would be the effect on safety of yard operations if all firemen were removed from yard diesels?

A There would be no effect that I would know of. In fact, in some cases there may be an improvement.

Q Well now, you say no effect in some cases or there might be an improvement. Have firemen ever prevented an accident in a yard?

A Well, in my 40 odd years, I would think that certainly there must have been some instances where firemen have prevented an affair. However, I would have to analyze that before I could make a comment on it.

Q Well now, let me give you this illustration. The fireman is closer to the engineer than the engine follower or the field man or the

foreman when the movement is under way, is he not? The fireman is closer to the engineer?

A Yes, he is closer.

Q An emergent condition ^{arises} /and the fireman shouts "stop" or "whoa" or "plug her", or something of that kind. Is that not the fastest reaction you can get?

A The engineer's attention is focused on the ground crew with whom he is working and he is looking for a signal from the ground crew. In many cases he has his head out of the window. He could respond much faster to a signal from the ground crew than he could replying to a shout because in the first place he may not hear it. He would have to put his head in the window and that moment's hesitation might result in a heavy coupling.

Q What is the reaction of a yard engineer to a violent stop signal from a yardman?

A He responds immediately by applying the brakes as hard as he can put them on.

Q Does he have to think about it?

A No, it is automatic, normally automatic --

MR. LEWIS: Mr. Chairman, really, does he have to think about it! First of all, does the witness know whether the engineer thinks about it or not? I should imagine a reflex action like that might also require thought.

THE CHAIRMAN: Your suggestion is that the Commission is in as good a position as the witness in that regard.

MR. LEWIS: With very great respect to the witness, I think better on that kind of question.

BY MR. SINCLAIR:

Q Now, yesterday and I think again this morning you mentioned that without firemen there might be less mishaps. I think yesterday you mentioned distraction. Do you ever have any really bad weather in Vancouver?

A Yes, we do. We have fogs.

Q What has been your experience on that?

HON. MR. McLAURIN: You had better not accompany us out to Vancouver.

THE WITNESS: Well, we had a very serious fog just recently during the last winter, and we operate with a reduced number of cars and our ground crews use whistles and they also use fusees.

THE CHAIRMAN: The witness knows what is involved in that, but I am afraid I do not.

MR. SINCLAIR: That was the basis of the next question.

BY MR. SINCLAIR:

Q When you were operating in that kind of weather what was your accident results, Mr. Shepp, in Vancouver yards?

A They were most favourable.

BY HON. MR. MARTINEAU:

Q They were what?

A Most favourable.

BY MR. SINCLAIR:

Q To what do you attribute that?

A To the extreme caution being used by the ground crews and the engineer in working during foggy weather where visibility was restricted to the degree that it was or is during fog.

Q Does the fireman assist them?

A No.

Q You used the word "fusee". What is a fusee?

A A fusee is a sort of carbon device that burns very very brightly for, on the average, 10 to 12 minutes.

BY HON. MR. McLAURIN:

Q Carried by the ground crew?

A Yes.

Q Do they all have one?

A Yes; they have a supply of them very convenient during foggy weather. The fusees are mainly used in road service. They are ignited and thrown out from the rear of the train; in the event of a train that is not making its scheduled running time the train crew ignite the fusee and throw it out on the track to the rear and it is for the information of a train following that the train precedin is losing time.

BY MR. SINCLAIR:

Q They give a very bright light in the heavy weather. In Vancouver they use these instead of their hand lamps?

A That is correct.

Q To relay signals?

A To relay signals.

THE CHAIRMAN: Are you leaving that? What is the function of the whistle? Who has the whistle; when is it blown, under what circumstances?

THE WITNESS: They also use whistles, which are the ordinary police whistles and in some areas where they are working completely by themselves they make full effect of the use of the whistles by interpreting the whistle first with one blast to interpret stop; two blasts to interpret proceed and three short blasts to interpret back-up.

BY MR. SINCLAIR:

Q Why do they use whistles?

A As a means of signal exchange.

Q Is it when the fog gets heavier or lighter?
Is that the time that they use them? Why
do they use them?

A They use them because they get the necessary
effect when they are handling more cars.
Then, they can conveniently exchange signals
between the point of the movement and the
engineer where fusees would not penetrate
the fog. The whistle signal is quite
effective.

Q That is, when they cannot be seen, obviously
they use the noise?

A They use the whistle.

BY THE CHAIRMAN:

Q The point of the movement is the front end
of the moving series of cars or the front
end of the moving car?

A That is right, sir, in cases where they
are pushing a number of cars to a location,
or where they are switching cars on a lead
and ^{detaching} ~~attaching~~ them from the point of the
movement.

BY MR. SINCLAIR:

Q Now, Mr. Shepp, in your approximately
40 years of being interested in yards, have
you ever heard of an engineer on a yard

engine suffering a spell or seizure while
he was running an engine?

A I can recall one instance only at the moment
during my experience, and that was in
Vancouver.

Q Yes; what happened? Was there an accident?

A There was no accident, no. I believe, if I
remember this correctly, the engineer was
working with the approval of management be-
cause he had quite a history of a seizure of
some type of fits, and the particular case
that I recall he was seized with one of the
fits during the movement, and the movement
was brought to a stop by the fireman.

BY THE CHAIRMAN:

Q Was that a steam engine?

A No, that was a diesel engine.

Q How long ago was that?

A That was in 1948.

BY MR. SINCLAIR:

Q Are yard engines equipped on the Canadian
Pacific with a safety pedal device -- maybe
I might ask you this before you answer that.
Do you know what I mean by a "safety pedal
device" on an engine?

A I presume you mean what we normally refer to
as a deadman control.

Q Yes; all right, we will call it that. Are
yard engines on the Canadian Pacific equipped
with deadman controls? First, what is a

deadman control?

A A deadman control is a pedal which is installed under the feet of the engineeer, and if ever he lifts his foot off the pedal the brakes automatically apply.

Q Now, my question is, are yard engines of the Canadian Pacific, or diesel yard switchers equipped with this deadman control at the present time?

A No, they are not.

Q Could they be equipped, do you know?

A Yes, I have been informed that there will be no difficulty encountered in equipping yard engines with such a device.

Q Why are they not equipped now?

A Well, I don't feel the necessity for equipping yard engines. They move around slowly and, after all, in my 40 years the only case I believe I ever heard of was this one I have mentioned where such an incident ^{occurred} on a yard engine.

THE CHAIRMAN: Mr. Sinclair, the first yard engine that I was on in Montreal the other day -- I was on two diesel motors -- the first one certainly had a deadman control, and this engine was engaged in yard service.

MR. SINCLAIR: It must have been either a test engine of some kind, sir, or a road switcher rather than a yard switcher.

THE CHAIRMAN: It may have been, I did not have the terms sorted out too well at that time.

MR. SINCLAIR: There may be the odd exception, but generally speaking on the Canadian Pacific at the present time yard diesels are not equipped with the safety control pedal device to bring the engine to a halt when the man lifts his foot.

THE CHAIRMAN: May I ask counsel this. You are using terms that are well known to you. You just used the words "yard diesel". Did you mean a yard switcher or a road switcher?

MR. SINCLAIR: I meant the yard switcher.

THE CHAIRMAN: Could we have them used uniformly and then a tyro does not get confused. This deadman control is not on the yard switcher, but it is on --

MR. SINCLAIR: It is on road switchers which are being used in passenger service and on road switchers used in freight service. On some of them it is there but it is disconnected; in others the pedal is not even there but the piping is available underneath. On the Canadian Pacific, sir, the situation is that yard switchers are not equipped at the present time with these deadman control safety pedal devices. Road switchers used in passenger service are equipped; cars body units

are equipped with them where they are used for freight or passenger service. In all freight movements they are not connected up. Sometimes you see them tied down or cut off. I have seen that; but in most cases they are disconnected in freight service. I would say some of them have not even got the pedals there.

THE CHAIRMAN: Just to get rid of any fogginess in my mind, you could probably find out whether the first engine I was on had the dead-man control there or not.

MR. SINCLAIR: I certainly will be glad to do so.

BY HON. MR. McLAURIN:

Q May I ask a question? It is a fact that my information is very limited. When you get very busy switching in a yard can you bring your road switchers in and do yard switching?

A That is right.

Q Which means you would not just have yard switchers switching in the yard?

A That is so.

Q You would be using everything but what you would call the automobile type --

MR. SINCLAIR: Car body.

BY HON. MR. McLAURIN:

Q You make use of these for switching and --

A They are not used for yard switching; they could be used on short strings, but the purpose of

a switch engine is -- these road switchers are dual purpose, are used for both road and yard work.

MR. SINCLAIR: Their designation is GP, and some of the witness may refer to them as jeeps, GP general purpose engines.

HON. MR. McLAURIN: All your power, all but the very special types, could be used for switching if necessary.

MR. SINCLAIR: That is right.

HON. MR. McLAURIN: It might not be economical; there might be too much power for yard work, but it could be used if you needed it.

MR. SINCLAIR: That is correct.

I have in mind one qualification on that. I am thinking of one type of power that is very powerful which may be pretty well limited to transport work. When we deal with these various types of power I shall produce for the Commission pictures, photographs of the various types of power that I have prepared. In so far as yards are concerned I have prepared these pictures giving you the whole range of development from the earliest steam yard engines right to the most modern. We did the same for the road situation. All this information will be put before the Commission.

THE CHAIRMAN: Would you mind finding out from the witness how the firemen stopped the engine in the incident he spoke of?



BY MR. SINCLAIR:

Q Mr. Shepp, did you hear the chairman's question?

A Yes, I did. The firemen in this incident went over and shut the throttle off and applied the brake.

BY THE CHAIRMAN:

Q The throttle was a hand movement?

A Yes.

Q And the brake is also a hand movement?

A Yes.

THE CHAIRMAN: He had no means of control from his side of the engine?

THE WITNESS: No he had not sir. He had to cross over and operate the engineer's control to bring the movement to a stop.

MR. SINCLAIR: I think what the chairman had in mind, likely, from being on some of these engines he has seen the emergency valve in the cab. Is that what you had in mind, sir?

THE CHAIRMAN: I was pointing out that the man sitting on the left-hand side of the cab can reach back and pull out a plug which has the same effect as shutting off the power.

MR. SINCLAIR: That would be the emergency valve. Do these engines have an emergency valve in the cab?

THE WITNESS: Not to my knowledge; not that type of yard switcher. Not in the cab.

MR. SINCLAIR: Here again, sir, I think the engine you were on might well have been a road switcher which would have an emergency valve there, but I will make inquiries to see if we can at least get the type if we don't know the number, and I will let you know.

THE CHAIRMAN: It looks as though that were so.

BY MR. SINCLAIR:

Q Now, Mr. Shepp, in your experience have

yards been improved? You have spoken yesterday about the mechanical hump or the retarder hump displacing the manually operated hump. By the way, we mentioned the Calgary yards, and I asked some questions about what would happen in the case of a transfer from a manual hump to a mechanical hump with regard to riders and switch tenders. Is that a hypothetical thing? Have you made any study of it?

A It is not hypothetical. Plans are in the making or completed in connection with the development of a retarder yard at Calgary. I don't know when it is expected to start -- that a start will be made -- but certainly the plans have been completed.

Q Now the question I was asking about is improvements other than these mechanical humps. Are there any other improvements in use that have improved safety or efficiency recently?

A I would say yes. When I started in the yards most yards were operated in complete darkness. Most yard engines were equipped with oil headlamps. Since that time most of the larger yards have been equipped with flood lighting. Formerly, even the switches had no ~~floodlamps~~ ^{lamps} on them; most modern yards now have lamps on all the switches, and they have been equipped

with talk-back systems.

Q Would you please tell us what a talk-back system is?

A Well, a talk-back system in a yard can be compared with the modern inter-communication systems that are widely used in offices. It differs to this extent only, that the speakers are widely distributed throughout the yards.

BY THE CHAIRMAN:

Q In fixed locations?

A In fixed locations sir, and the yardmaster who controls the movement of the yard is located in an elevated control tower, and he can from his observations ^{contact} ~~conduct~~ a yard crew working at a considerable distance from the tower by pressing a button and speaking and his voice will be audible to the crew working in that area through the speaker.

Q He can by design project his voice out of one speaker rather than another?

A Yes, he can; and the speakers at fixed locations are so designed that the yard foreman can reply to the yardmaster over a distance of 15 or 20 feet from the speaker.

BY MR. SINCLAIR:

Q Now, that is the "talk". Does that cover

the "back" too?

A Now with this talk-back system the yard foreman working in an area where there is a speaker can go to the speaker and by pushing a button a light lights in the yardmaster's office and the yardmaster will immediately get into conversation with him.

Q By the way, have we got a talk-back system on the Canadian Pacific?

A Yes, we have. We have two at present. We have at one at St. Luc and one at Winnipeg.

Q St. Luc, Montreal. Are there any other systems which have improved safety and efficiency in yards?

A I don't think any improvements --

Q What about radio?

A Yes, we have a number of our yard engines equipped with radio and a number are going to be equipped in the very near future.

Q Have we got any radio equipped yard engines at Vancouver?

A No, not at present but preparations for it have been approved.

Q They have got the wavelengths for them?

A Yes they have.

BY THE CHAIRMAN:

Q When you speak of a yard engine you mean primarily a yard switcher. Does the term also include any kind of an engine when it is

used in yard service?

A When we speak of a yard engine we do speak of any kind of an engine that is used in yard service because we still have quite a number of steam yard engines, but we do not make a general practice of ~~using road switchers~~ ^{switchers} in yards. There are times when the regular yard ~~switchers~~ ^{switchers} are undergoing inspection when we may use a road switcher but road switchers are not, generally, regularly assigned to yard service.

Q What is the primary purpose of the road switchers?

A The road switcher is used primarily for service in between terminals on a subdivision for switching small stations on roads from one terminal to another.

Q A way freight?

A A way freight is a good example.

Q From one division point to another?

A From one division point to another.

Q That is really on the road?

A That is on the road, sir.

BY MR. SINCLAIR:

Q Mr. Shepp, in certain areas are not yard switchers pretty often to be found in use?

A Yard switchers?

Q I am sorry. Road switchers.

THE CHAIRMAN: You said "yard switchers".

THE WITNESS: They are in ^{transfer} ~~travel~~
service use.

THE CHAIRMAN: What does that mean?

THE WITNESS: That means that they normally perform the service of hauling long lines of cars from one location in the terminal to another.

BY MR. SINCLAIR:

Q And have you ever used them in Vancouver for general yard switching?

A Yes we have.

BY THE CHAIRMAN:

Q That would mean, then, that the road switcher is usually used for the heavier work in the yard. Would that be right?

A Yes, it could be. That would be the purpose of the road switcher; more or less for heavier work.

Q But it might be used for any work?

A It could be.

Q While we are on the subject there is just one other question: you speak of the road switcher -- talking about freight -- being used to haul ~~as~~ between one division and another. If the freight is going to run over two or three divisions do you use some other kind of motive power?

A No. A road switcher can also be used in the multiple with other types of road diesel.

Q Is there any other kind of diesel motive power unit used in freight service anywhere, or is it just the yard switcher and the road switcher?

A There ~~is~~ is the boxcar ~~of the~~ body type used sometimes in freight service as well as passenger service.

Q What I mean is, do you use the same kind of diesel locomotive in any circumstances in freight as you use to haul passenger trains?

A I didn't quite understand your question.

Q What is the type of diesel locomotive that is used in passenger service on the Canadian, for instance. What do you call that?

A On the Canadian we use a General Motors type and we can add the boxcars.

MR. SINCLAIR: A and B units.

BY THE CHAIRMAN:

Q Do you use that in freight service, too?

A Sometimes we do.

Q That, I take it, is where the freight is going on long hauls over more than one subdivision?

A That is correct, sir, yes.

THE CHAIRMAN: That is good enough.

MR. SINCLAIR: I think when I call another witness I will cover the handling of road cars.

BY MR. SINCLAIR:

Q Now, Mr. Shepp, I have here a photograph

which shows the earliest type of wood burning locomotive in yard switching service on Canadian Pacific. This will be Exhibit 29.

EXHIBIT No. 29 -- Earliest type
of Canadian
Pacific Railway
wood-burning
locomotive in
yard switching
service.

THE CHAIRMAN: Perhaps we might look
at this during the break.

--- Recess.

-- After recess

JOHN SHEPP, Recalled

EXAMINED BY MR. SINCLAIR:

Q Exhibit 29 is the photograph you have before you, Mr. Shepp.

A Yes.

Q Would you comment quickly on that?

A This was the first type of locomotive of which the company has a record which was used in the Winnipeg yard. It was fired by means of wood. The fireman kept stem up by placing wood in the firebox.

MR.SINCLAIR: The Commission will recall that Mr.Gossage gave some evidence as to the fireman's responsibilities in addition to keeping up pressure. I just make that comment so we can tie it in.

BY MR. SINCLAIR:

Q What was the next step in the development of engines? You have a photograph there. What engine number is that?

A Engine No.6050.

MR. SINCLAIR: I would ask that this photograph be filed as Exhibit 30. It is a photograph of C.P.R. engine No.6050.

EXHIBIT No.30: Photograph, engine No.6050

BY MR. SINCLAIR:

Q I notice that this Exhibit 30 has a considerable amount of data about the locomotive down on the righthand side of the photograph. Where did that data come from, Mr.Shepp?

Mr. J. Shepp

A That data came from the company's records which are kept in our mechanical department.

MR. LEWIS: This coal, is it?

BY MR. SINCLAIR:

Q Is that a coal-burner?

A Yes. This engine was the first coal burning type of locomotive that was built for yard service that we have a record of. It had a haulage capacity of 23 per cent.

Q I think we had some question about that.

What is a 23 per cent locomotive?

What does the 23 per cent mean?

A The percentage of haulage capacity is expressed in thousands of pounds of tractive effort. For example, each thousand pounds represents 1 per cent of tractive effort.

Q Noting that Exhibit 30 represents a 23 per cent engine, do you know the percentage of the engine in Exhibit 29 approximately?

A I believe Exhibit 29 was approximately 12 per cent.

Q I notice that Exhibit 30 also shows the weight on drivers loaded, 112,000 pounds.

Do you see that?

A Yes.

Q Is that correct?

A Yes, that is correct.

Q Looking at the photograph, would that mean the weight of the locomotive on the three wheels to which the side rods are connected?

Mr.J.Shepp

A Yes, that is correct, the weight on the drivers
drivers.

Mr. J. Shepp

Q Any more comment on that one, Mr. Shepp?
Did you ever work with that kind of engine?

A Yes, I did.

Q As a what?

A As a yard man and yard foreman. The only difference in this type of engine from the wood burner was that the fireman generated steam by means of shovelling coal rather than feeding the fire box with wood.

Q What was the next step, Mr. Shepp, in the development of yard power? What is the number of the engine?

A The next step was engine 6951.

MR. SINCLAIR: I ask to file as Exhibit 31 C.P.R. engine No. 6951.

EXHIBIT No. 31: Photograph of C.P.R. engine 6951.

BY MR. SINCLAIR:

Q Looking at Exhibit 31, what is your comment, Mr. Shepp, please?

A That was the first engine that was built for yard service with a vestibule cab, and that of course increased the comfort of the engine crew. It was a much larger engine. It had a haulage capacity of 55 per cent and it was used in the Winnipeg yard for heavy work, particularly handling trains --

Q Was it only used in Winnipeg?

A Yes, it was only used in Winnipeg, to my knowledge.

Q It has ten driving wheels, I notice?

Mr. J. Shepp

A Yes, it had ten driving wheels.

Q Did you ever work with this kind of engine?

A Yes, I did in Winnipeg.

Q Was it hand fired or stoker fired?

A It was hand fired.

Q What was the next development, please?

What is the engine number?

A The next one I have here is engine 6861.

Q Looking back for just a moment, I notice
in Exhibit 30 as compared to Exhibit 31 --

THE CHAIRMAN: Before you get too far away,
this new photograph will be Exhibit 32.

MR. SINCLAIR: I will put it in first.

EXHIBIT No. 32: Photograph of C.P.R. engine
No. 6861.

BY MR. SINCLAIR:

Q Before going on with engine 6861, I notice
that on Exhibit 30 at the bottom it gives the
fuel capacity as four tons and on Exhibit 31,
as compared to Exhibit 30, the fuel capacity
is 12 tons?

A That is correct.

Q When these engines were working, Mr. Shepp,
would they have to go for additional fuel
on the normal shift?

A No, they would not go for it, not on the
6951 type. There would be sufficient fuel
to carry the engine throughout its operation
for the 8-hour shift.

Q Looking at Exhibit 32, engine 6861, what kind

Mr. J. Shepp

of engine is that?

A That is an engine of the -- I believe it was formerly a road engine of the Mother Hubbard type and it was converted and rebuilt for yard service.

Q Why did they call it "Mother Hubbard"? You mentioned the Mother Hubbard type.

A Because of its peculiar construction for road service. The cab was located toward the centre of the boiler and the fireman was completely separated from the engineer.

Q That is, when in road service the fireman and the engineman were in different compartments?

A That is correct.

Q In this photograph the cab is at the end of the engine. Is there anything unusual about that cab?

A Yes. I would like to mention that I did considerable work in Calgary with this type of locomotive. Although it was not the same number it was the same type. The number in that instance was 6828, and I would like to draw attention to the construction of the cab on this type of locomotive. While I do not have a photograph of the cab view the fireman and engineer had separate compartments and they entered through a door on each side of the cab that is not visible on this photograph, but it is in between the tender and the cab.

Mr. J. Shepp

Q You say separate compartments for the engineer and the fireman. What was between them?

A The boiler was between them.

Q Does the boiler come right back in that cab?

A It comes right back to almost the level of the rear of the cab and when the fireman went into his compartment he could not see the engineer unless he stood up and looked over the boiler.

Q Was the boiler warm?

A Yes, the boiler would be warm and, as I said, I worked a considerable portion of my time in Calgary with this type of locomotive which was still equipped at that time with an oil burning headlight.

Q An oil burning headlight.

BY THE CHAIRMAN:

Q Mr. Shepp, when you are speaking of the construction of the cab are you speaking about when it was in road service or when it was converted for yard service or both times?

A I am speaking of this particular construction of the cab as it appears on this locomotive after it was converted to yard service.

BY MR. SINCLAIR:

Q That is as it is in Exhibit 32, as a yard engine?

A That is correct. I would like to say too that during my experience with this type of locomotive the work that was performed was -- there was a considerable amount of industrial

Mr. Shepp

work.

Q With this type of engine?

A Yes.

THE CHAIRMAN: What?

MR. SINCLAIR: Industrial work.

BY MR. SINCLAIR:

Q Industrial switching?

A Industrial switching.

Q That again was when you were placing cars at industrial locations and switching in more restricted areas than in the yard.

A That is correct, and also a considerable amount of flat switching.

BY THE CHAIRMAN:

Q Excuse me. Until you got the hump type of yard was all the switching flat switching?

A Yes, originally all the switching was flat switching.

Q I had understood, and I may be wrong and I want to be corrected if I am, that flat switching was used in contra-distinction to hump switching?

A Yes -- well, where we have manual humps or even at points where retarder humps are in operation there is also a considerable amount of flat switching.

Q Quite, but there are just the two types, flat and hump?

A That is correct, yes.

BY MR. SINCLAIR:

Mr. Shepp

Q Is there not a third, shoving and pulling?

A Well, yes, as I explained before, in pushing a number of cars attached to either end of the engine to a location under control of signals, to a location where a complete stop is made with the cars that are being pushed.

BY THE CHAIRMAN:

Q It is still flat switching?

A It is still flat switching.

HON. MR. McLAURIN: Does flat switching embrace cars running free? In other words, you have hump switching and flat switching and then flat switching admits of being divided into a variety of types of switching.

MR. SINCLAIR: That is correct, but generally speaking, flat switching and hump switching, as the witness explained yesterday, are where you find cars running free. Pushing and pulling is a type of switching where the cars do not run free and the cut-off is not made until the movement stops.

BY MR. SINCLAIR:

Q In industrial switching is it shoving and pulling or do you let cars run free in industrial switching?

A Very, very seldom are cars allowed to run free in industrial switching.

Q You were explaining that you worked with this type of engine in industrial switching

Mr. J. Shepp

and also in other types of switching in the Calgary yard for quite awhile?

A Yes.

Q And you pointed out to the Commission that on account of the construction the fireman had to stand up and kind of stretch over the boiler to even see the engineer?

A That is correct.

Q And did that lack of communication between the fireman and the engineman affect your ability to get the work done?

A No, it did not. That was the point I was making. The work progressed continuously without interruption.

BY THE CHAIRMAN:

Q So that I may understand, looking at Exhibit 32 one looks through the windows on this side and when you look straight through I suppose you see the windows on the other side of the cab? Is that so?

A That is correct, sir -- no, no, pardon me. You cannot see the windows on the other side of the cab on this particular engine because the boiler is in between.

Q Oh, I see.

A What you would see there would be the end of the boiler.

Q Then, the fireman works on the lefthand side of the engine?

A That is correct.

Mr. J. Shepp

Q Well, when he is shovelling coal he has to introduce his shovel into the coal in the tender and shovel it into the fire box which is at the end of the boiler?

A That is correct.

Q Then at that time he must be standing at the rear of the boiler?

A That is exactly correct, he is standing in between the tender and the fire box which is located at the end of the boiler.

Q And at that time could he see the engineer?

A No, he could not because the engineer would be on his side with the door closed.

Q The engineer would be what?

A On his side.

Q On the engineer's side?

A On the engineer's side with the door of the cab closed. He would be completely enclosed in his compartment.

Q In any event, the fireman would be busy shovelling coal?

A That is correct.

Q And when he was not shovelling coal he would be in his own compartment either sitting down or looking at the water or steam?

A That is correct.

Q And he could not see the engineer unless, as you say, he stood up and looked over the boiler?

A That is correct, sir.

Mr. J. Shepp

MR. SINCLAIR: I should point out, Mr. Chairman, and I regret this very much, that we pasted on this picture some data and the weight on drivers is wrong and the haulage capacity is wrong. I will have that corrected. We are checking the equipment register. It is obviously wrong. In dictating it we have got some figures wrong, and with your permission we will change them.

Mr. LEWIS: Mr. Chairman, before my friend proceeds, this is not a matter for cross-examination and perhaps my friend can have it explained. I could not help noticing that the chronological sequence in the building of these locomotives is in the reverse order to that in which progress is supposed to have been made. I notice that Exhibit 32 is built in March, 1899, Exhibit 31 in October, 1914 and Exhibit 30 in 1904. I said the reverse order. It is not quite that but the order is mixed up.

J. Shepp

MR. SINCLAIR: If I can help my friend, this locomotive was built by the American Locomotive Company for yard service.

THE CHAIRMAN: When you say "this"?

MR. SINCLAIR: Exhibit 32, was a converted road power. It was in road service and was built for road service; it is the Mother Hubbard type, and was built by the American Locomotive Company in March, 1889. It ran in road service and then was subsequently converted to yard service.

BY MR. SINCLAIR:

Q That is why it is in this order, is that right?

A That is correct.

Q It was converted after the date that was shown on Exhibit 31.

MR. LEWIS: It was actually an engine in the development of the engine built before Exhibits 30 and 31.

MR. SINCLAIR: Well, it was built for road service and then converted to yard service. As the evidence will show, that is not unusual. It is not unusual for locomotives to be built for road service and then later converted.

THE CHAIRMAN: All Mr. Lewis is pointing out, as I understand it, is that Exhibit 32 was built in 1889 originally.

MR. SINCLAIR: That is right.

Mr. LEWIS: I just wanted to question the order.

MR. SINCLAIR: I think he thought I had them out of sequence in their introduction to yard service, but I have explained that. I shall try to assist my friend by giving him photographs of this engine type in road service.

BY HON. MR. MARTINEAU:

Q Mr. Shepp, did I understand that when this engine, Exhibit No. 32, was converted into a yard switcher the cab was brought forward, or was put in that position when it was used on the road?

A No, it was not in that position when it was used in the road; when it was used in road service the cab for the engineer, or the compartment of the engineer, was located at about the centre of the boiler and a separate compartment for the fireman was located at the rear of the boiler.

BY THE CHAIRMAN:

Q On opposite sides of the boiler, too?

A Yes, there were on the right and left, I believe.

BY HON. MR. MARTINEAU:

Q Two separate cabs, or one which was farther back than the other?

A Yes, one cab was farther back than the other.

J. Shepp

MR. SINCLAIR: I have asked that photographs be made of this locomotive showing that and I will introduce it with another witness when I get to dealing with road power. These two cabs one about the centre of the boiler, as the witness says, and as I have seen the picture and one back, the cab seems to go right across the locomotive in both cases. I think that is where they get the expression "Mother Hubbard;" it is a descriptive phrase.

BY MR. SINCLAIR:

Q Now, Mr. Shepp, what is the next development that you wish to refer to?

A The next development is engine 6607.

Q That will be Exhibit 33.

EXHIBIT NO.33: Engine No.6607.

Q What^{is}/your comment on that engine, Mr. Shepp?

A Well, this was the largest and last coal burning hand fired locomotive that was built for yard service. It was used in yards where heavy volumes of traffic were required to be switched, such as coal and grain, and there was considerable firing required of the firemen to get the steam up on this type of locomotive so that they could perform the service for which it was intended.

Q Did you ever work on this type of engine in the yards?

A I did not actually work with it as a foreman

Mr. J. Shepp

but it certainly was working in Calgary under my supervision. I would also like to mention that this type of locomotive was ~~equipped~~ ^{brick} with a ~~breech~~ arch which enabled the engine to steam ~~more~~ freely than some of the other types. It was an improvement in the development of steam power.

Q You observed this engine working, doing switching operations when you were yardmaster or assistant general yardmaster?

A Yes.

Q When the fireman was on the deck shovelling, did the engine stop?

A No, it did not; the work continued without interruption.

Q Now, just before we come to that, you say that was the last steam locomotive built for yard service?

A That is correct.

Q Last type.

BY THE CHAIRMAN:

Q Would Exhibit No. 33 have the same type of cab as Exhibit No. 32 so far as the position of the boiler was concerned?

A No, it was entirely different; the boiler ended at the front of the cab.

BY MR. SINCLAIR:

Q When you say "built for yard service", or converted from road to yard, are there different specifications or requirements for yard engines

J. Shepp

as against road engines, or do you know that, sir?

A Oh yes. Road engines are equipped with only a headlight to the front; whereas yard engines require headlights to the front and rear. Yard engines are also required to be equipped with foot boards, such as is shown on this locomotive here.

Q You are looking at what exhibit?

A Looking at Exhibit No. 33. The front of the engine is equipped with a foot board so that ground crews can ride on the foot board; but in road service, of course, the front of the engine would be equipped with a pilot.

Q Instead of foot boards?

A Instead of foot boards.

Q The pilot is an iron --

A It is commonly referred to in layman's language as a cow catcher.

BY HON. MR. MARTINEAU:

Q Was it built as a switching engine or for road work?

A No; this one, was built exclusively for switching.

BY THE CHAIRMAN:

Q Exhibit No. 33.

A Exhibit 33, sir.

BY MR. SINCLAIR:

Q Now, are any of the types shown in Exhibit 33 still in service on the Canadian Pacific in yard

J. Shepp

service?

A Yes, there are.

Q What about Exhibit No. 32; are they still in
yard service?

A No, I believe that they have all been scrapped
but I am not sure of the date.

Q I am instructed that this locomotive shown
in Exhibit 32, _____ were
in service until 1939.

You still have some of the 66 class shown
in Exhibit 33 in yard service?

A That is correct.

Q Have you other types of steam engines in
yard service at the present time that are
not shown on these photographs, Exhibits 29
to 33?

A Yes, we have. We have a considerable number
of former locomotives used in road service,
such as the 3600 and 3700 class and the
5700 class, which are the oil burning type
of locomotives and quite a number are widely
used.

Q Are there still hand fired steam locomotives
operating in the yard?

A Yes, there are quite a number of them.

Q Are there stoker fired steam engines operating
in the yard?

A No, there has never been a stoker fired
engine used in yard service to my knowledge.

A But there are today some oil fired steam engines

J. Shepp

in yard service.

A There are quite a number of oil fired steam yard locomotives.

Q Now, working as a yard foreman with steam power, does that present any problems that are not provided by diesel power that you would think are of importance to safety of yard operations?

A Well, with steam power we did occasionally experience an interference with the signals due to smoke or steam obstruction from the engine and , of course, the efficiency of a diesel yard locomotive is much better because there is not the necessity of going for coal or water.

Q How would the view of the engineman compare on a steam engine and the yard diesel?

A Well, the view, of course, on a diesel engine is better, much better to the front and much improved to the rear.

Q Now, what was the first yard diesel secured by the Canadian Pacific? Have you got a photograph of that?

A Yes, I have a photograph of that.

Q A picture of diesel engine 7000, built in 1937 by the National Steel Car Company of Hamilton. I ask to have that marked as Exhibit 34.

EXHIBIT NO. 34: Engine 7000, built by the National Steel Car Company of Hamilton.

J. Shepp

HON. MR. McLAURIN: First in yard service.

MR. SINCLAIR: First in yard service.

BY MR. SINCLAIR:

Q How many of Exhibit No. 34 did the company secure?

A I understand that there was only one of this type of locomotives secured at that time. It was an experiment, used on an experimental basis in Montreal. I had no experience with it other than what I have been told about this type of locomotive.

Q What was the next type of diesel yard switcher secured by the Canadian Pacific?

A The next type was --

HON. MR. MARTINEAU: What year was that?

MR. SINCLAIR: 1937, sir, they got one, the witness said and it worked in Montreal.

BY MR. SINCLAIR:

Q The next type was secured when, Mr. Shepp?

A The next type was secured in 1943.

Q And you have a photograph of one of this type, being diesel yard switcher 7010?

A That is correct.

Q I would ask to have that marked as Exhibit No. 35.

EXHIBIT NO. 35: Diesel yard switcher 7010.

Q Did the company not secure any diesels between 1937, as shown in Exhibit 34 and 1943, when they received the type shown in Exhibit 35?

A No, they did not -- not to my knowledge. There were no diesels secured in that period. So, if I may summarize, they secured the type shown in Exhibit 34 in 1937, and the next purchase of any diesel was in 1953 when they purchased some of the type shown in Exhibit 35. Do you know how many they got?

A I believe they secured five at that time.

Q The Canadian Pacific secured five?

A Yes.

Q What is your comment on Exhibit 35?

A Well, it shows a side view and it shows the view on the engineer's side, and it shows, of course, most significantly, the absence of any smoke or steam or anything; there is no obstruction of any kind.

Q Just before we go on I would like to put in as a companion to that, and maybe it could be marked as Exhibit 35-A, the same general type. I don't happen to have one of the back view of the same engine, but the same general type. There is some difference, and I will ask the witness to explain that, but it shows the back of an ALCO engine 7117. diesel yard switcher.

EXHIBIT No. 35-A -- ALCO diesel
yard switcher.

BY MR. SINCLAIR:

Q Do you know why on Exhibit 35 it shows Class DS10A, while on Exhibit 35-A it shows Class DS10W? Does that mean anything? Has it any significance?

A No, not particularly.

Q I just happened to notice it myself. It may be a mistake. I don't know. I am instructed now that they are exactly the same, and that this is just a designation number which does not mean anything. The class is DS10. Looking at Exhibits 35 and 35-A, what is your comment about them generally, Mr. Shepp?

A I would just draw to attention the much improved view that there is from this type of locomotive from the cab end.

Q Looking at Exhibit 35, I notice that at the front of it there is a footboard you would find on a steam engine, but also there is --

A There is a side step -- a side step both front and rear on this type of locomotive.

Q Is that a safety factor?

A Yes, it is. It is a safety factor because on the steam locomotives an instruction was issued some time ago restricting yard

employees from riding on the front or on the lead footboard of a locomotive in the direction of its movement.

MR. LEWIS: I am sorry, but I did not hear.

MR. SINCLAIR: He said there was an instruction issued on steam locomotives that they were not allowed, or would not be allowed -- what was it you said?

THE WITNESS: That they should not ride on the footboard of a locomotive, on the front of the locomotive or in the direction of its movement.

BY MR. SINCLAIR:

Q And therefore, for safety reasons, when the diesels came along, you built these platforms?

A That is correct.

Q So they would not have to ride the leading footboards?

A Correct.

Q So they are able to ride the point of the movement without the danger associated with, maybe, missing their footing on the footboard?

A Correct.

Q And there are handrails for them to hold on to?

A Correct.

Q To lean out and signal from there?

A Correct.

MR. LEWIS: I notice that the information with these diesel photographs does not include the weight on drivers. Are they all of the same weight?

MR. SINCLAIR: I think all the weight is on the driver in diesel engines, is that right?

THE WITNESS: They are approximately of the same weight.

MR. SINCLAIR: The weight on the driver will be 230,000 pounds.

MR. LEWIS: The total weight of the DS10 is the same as the weight on the driver?

THE WITNESS: That is correct.

BY HON. MR. MARTINEAU:

Q Are they still using these 235's?

A Oh yes, they are used; they are widely in use.

Q Is that one of those we rode in, Mr. Sinclair?

MR. SINCLAIR: I don't know what you rode in, sir, I was not there and I could not tell you, but, again, I will find out. I will speak to Mr. Martin who ~~was~~ ^{was}, I understand, with you, and I will ask him if you were on this type of engine and let you know. Will that be satisfactory?

HON. MR. MARTINEAU: Yes.

BY MR. SINCLAIR:

Q Did you ever work with the type of engine, or supervise the type of engine shown in Exhibits 35 and 35-A?

A They have worked consistently under my supervision.

Q What was your first experience with yard diesel switchers?

A My first experience was in 1944 when I was general yard master at Calgary. We received two of the ALCO type, similar to Exhibit 35.

Q You received two of these in Calgary?

A In Calgary.

Q Yes, and what was your experience?

A I did considerable experimental work with them in Calgary as we were trying them out in various assignments to see just how effective they were in dealing with the work that was to be carried out on these assignments. It was a radical change in our experience in Calgary because we had been working exclusively with steam, and therefore we had to find out what this type of locomotive could do.

Q Was a fireman part of the crew when you first got them in 1944 in Calgary?

A Oh yes.

Q Why?

A Well, they were used on various assignments combined with steam at that time; a regular crew might have a steam engine one day and the new diesel the next day during the experimental stages.

Q Was there much interest in this locomotive

when it first came to Calgary -- other than by people such as yourself? Were the crews interested in them?

A Yes, there was considerable interest shown by everyone.

Q Did the firemen try to get on them or did they try to keep off them?

A The firemen were automatically called for them; they were part of the crew.

Q You just called them and put them on?

A We just called them and put them on.

MR. LEWIS: I was afraid for a moment there was some suggestion that the firemen had mobbed the engines.

MR. SINCLAIR: I could well understand the thought that they might have in the light of the work required of them on them, Mr. Lewis. I would not be surprised. If they gave any fireman the chance to ride one of these or work on a 6800, I know what he would go on, and I don't think you would have any doubt if you were a fireman, either.

THE CHAIRMAN: I think we will go by the evidence rather than the opinions of counsel.

MR. SINCLAIR: My friend introduced a remark which I thought, if I may say so, was uncalled for.

BY MR. SINCLAIR:

Q Now, Mr. Shepp, you left Calgary for Vancouver in 1945?

A That is correct.

Q Were there any diesels in Vancouver when you got there in 1945?

A No, there were no diesels in Vancouver, only steam.

Q When did you get your first diesels in Vancouver?

A In 1948.

Q Do you remember what time in 1948?

A I am not quite sure; I think it was somewhere in the middle of the summer. I am not quite sure.

Q And that was your next experience with supervising diesel power?

A That is correct. Some time in the summer of 1948.

Q Do you remember how many units you got in 1948?

A I believe we received seven units.

Q What type were they, can you recall?

A They were the Baldwin type.

Q Did they look much different from Exhibit 35?

A No, they are almost identical.

Q Did you put them into service in Vancouver in the summer towards the end of the year 1948?

A Yes, we did.

Q Were firemen working as part of the crew?

A Yes, they were.

Q Why did you assign firemen as part of the crew there?

A At that time I was not concerned; I was not in a capacity where I made the policies, so I assigned them because there was no instruction otherwise.

H-2

Q Did you think they could make a useful contribution to the service, or did you not?

A No, I did not. I believe I came to that realization before I left Calgary, and certainly it became more apparent in Vancouver at that time.

Q Yes. And did you discuss it with other people -- this view of yours that firemen would not make a useful contribution on diesels?

A I did at Calgary among my own immediate associates.

Q What about Vancouver? What about when you went there and started getting diesels again in 1948?

A I did in Vancouver, but not in 1948; after I had had considerable experience in Vancouver with them, and that was not until 1950, when I really --

MR. LEWIS: What were those last words?

THE REPORTER: "When I really".

THE WITNESS: -- when I really took the opportunity to make a serious observation and study of the operation of diesels in yard service.

BY MR. SINCLAIR:

Q In 1950. And the result of your observation --

what were your conclusions as to crew requirements?

A My conclusions were that firemen were not contributing any useful service to the operation, and that it could continue without the employment of firemen.

Q What did you do about it?

A I spoke to some of our officers I was associated with at that time. However, we were not then in a position where policies were made, and in view of the fact that firemen were being employed, it was just merely a discussion.

Q When did you first take action and get the matter to management in a situation where policies were decided? What year was that?

A Well, in 1952 I was appointed to the negotiating committee with the running trades and a considerable discussion was taking place with other officers across the system with respect to the question of the employment of firemen on diesel yard engines.

Q You say "other officers". What kind of officers? Do you mind giving their names?

A One of the officers was at that time my immediate superior. I was superintendent at Vancouver, and my immediate superior was the general superintendent. His name was McCracken. He later became general manager; and a member of the negotiating committee who

was formerly a yard master of considerable experience who I worked with in Calgary who later became assistant manager of personnel.

Q What was his name?

A His name was McNaughton.

Q And you discussed it with those officers. You were then in a position to get your views to the management, and what did management do? Do you know?

A In 1953, of course, the company's requests in the 1954 negotiations included the question of the employment of firemen.

Q What is this you are saying? That in 1953 the company proposed -- to whom?

A In 1953 there was a discussion with respect to -- a discussion among the negotiating committees with respect to the management requesting at the next scheduled revision that the question of the employment of firemen on yard diesels and road diesels would be an item that would be discussed with reference to the removal of --

THE CHAIRMAN: These discussions, the negotiations you are referring to, were within the C.P.R.?

MR. SINCLAIR: He said between the negotiating group of the Canadian Pacific.

THE WITNESS: Within the C.P.R.

BY MR. SINCLAIR:

Q When was the first formal proposal for the

removal of firemen from yard diesels made, to your knowledge?

A It was made early in 1954 during the scheduled revision at that time.

Q Were you part of the committee that advanced that proposal?

A I was part of the committee, and Mr. McNaughton was chairman, then, of the company's negotiating committee.

Q And was it proposed to the firemen's union -- what was the proposal, if I may put it that way?

A The proposal was that firemen on yard diesels and road diesels would only be employed at the discretion of the company.

Q Was anything said about firemen on passenger diesels, or was the proposal wide enough to cover that?

A No, on passengers there was a proposal to reduce the rates that were at that time being paid to passenger firemen by 30 per cent.

Q What happened? Did you put this proposal on the table with the firemen's union when you met with them?

MR. LEWIS: Mr. Chairman, this is pretty important. Perhaps my friend would ask him "What happened" and let him tell.

MR. SINCLAIR: Very well.

BY MR. SINCLAIR:

Q What happened?

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A The management --

Q What happened after you made the proposal?
You made a proposal to the firemen's union.
I want you to tell the Commission what
happened then. How did you make the proposal?
Did you write them a letter? How did you
make the proposal?

A The proposal was made across the table and
the company's requests were, of course, in-
cluded in the minutes that we got of the
meeting.

Q Were the firemen's union given formal notifi-
cation of the company's proposals?

A Yes, the firemen's union were given formal
notification.

BY THE CHAIRMAN:

Q By "formal proposals" do you mean something
in writing?

MR. SINCLAIR: Yes, reduced to writing
and deposited with the Brotherhood, he said, by
way of minutes.

THE CHAIRMAN: So this formal proposal
is the same thing as the minutes, is it?

MR. SINCLAIR: I am instructed there was
a letter sent.

THE CHAIRMAN: Did that arrive after this
was discussed across the table? Or was it sent
before these discussions across the table took
place?

THE WITNESS: The letter was before the discussions across the table.

THE CHAIRMAN: Perhaps this would be a good place at which to adjourn.

--- The Commission adjourned at 12.37 p.m. until 2.15 p.m.

Thursday,

March 7, 1957.

AFTERNOON SESSION

---The Commission resumed at 2.15 p.m.

JOHN SHEPP, recalled.

EXAMINED BY MR. SINCLAIR:

Q Just before adjournment, Mr. Shepp, you were dealing with the negotiations which led to the 1954 labour agreement, which is Exhibit 1 in these proceedings, that is the agreement with the firemen's union, and you spoke of the proposals of the company and referred to a letter.

MR. SINCLAIR: I would like to produce as Exhibit No. 36 a letter dated December 30, 1953, from Canadian Pacific Railway Company to Mr. J. Graham, General Chairman, Brotherhood of Locomotive Firemen and Enginemen, Montreal.

EXHIBIT No. 36 -- Letter,
December 30,
1953, Canadian
Pacific to union.

MR. SINCLAIR: This letter reads:--

" Toronto, December 30th,
1953.

Mr. J. Graham,
General Chairman,
Brotherhood of Locomotive Firemen
and Enginemen,
309-1405 Bishop Street,
Montreal 25, Quebec.

" Subject: Collective agreement between the Canadian Pacific Railway Company and its firemen (helpers) and hostlers on the Eastern Region, as represented by the Brotherhood of Locomotive Firemen and Enginemen. Rates and rules effective February 16th, 1953. Agreement subject to notice by either party after December 15th, 1953.

Dear Sirs:

Referring to your letter December 18th and proposition attached thereto serving notice of desire to change the above agreement governing firemen on the Eastern Region.

This is to advise you that the committee which will represent the company in the forthcoming negotiations will consist of Messrs. I.J. McNaughton, Chairman, A.M. Hand, J. Shepp, and G. Meldrum, with power in them to authorize such additional person or persons as they deem necessary to serve with them. Communications in the matter should be addressed to Mr. I.J. McNaughton, c/o Personnel Department, Canadian Pacific Railway Company, Montreal. These authorized representatives carry the authority on behalf of the company to bargain collectively and to make every reasonable effort to

"conclude a renewal or revision of the Eastern Region agreement.

This is also to advise you that the company desires changes made in the agreement including, but not necessarily limited to the following:

1. Revise Article 11, Clause (f), to read:

'A helper, taken from the seniority ranks of the firemen, shall be employed on all locomotives at the discretion of the company.'

2. Revise necessary articles to provide that firemen or helpers in all services will be paid from the time required to report for duty until released from duty.

3. Reduce current rates of pay in passenger service by 30 per cent.

4. Clarify Clause (c) of Article 4, (firemen) and Clause (b) of Article 31 (hostlers) by adding thereto the following:

'Note: When fireman or hostler is required to remain on duty in excess of eight hours in continuous service he will receive overtime at time and one-half on the minute basis. When he starts on a second shift within a 24-hour period he will not be paid

" 'under the overtime rule but will start a new day.'

Your subsequent letter of the 28th instant suggesting Montreal, January 13th, as a date and place for initial meeting has been referred to Mr. I.J. McNaughton and I presume you will hear from him in due course.

Yours truly,

(Sgd.) G.E. Mayne,

General Manager."

BY MR. SINCLAIR:

Q Now, as a matter of interest and looking at Exhibit 36, Mr. Shepp, you mentioned Mr. McNaughton and said he was a former yardmaster?

A He was a former yardmaster with me when I worked in Calgary. He worked as yardmaster at a number of other points in his career, and he later became assistant superintendent, and he was appointed head of the Western Lines with respect to the safety organization that was made effective around 1944 or 1945, and he later entered the Personnel Department as Assistant Manager.

Q And Mr. Hand, what is his background?

A Mr. Hand was at one time superintendent of the Toronto Terminals, in so far as the Union Station was concerned. He was

general manager of the Quebec Central Railway, and prior to that his experience originally was as an operator and he was also assistant to the vice-president in Toronto at one time.

Q By operator, what do you mean?

A Telegraph operator.

Q There is yourself, and then Mr. Meldrum; what is his background?

A Mr. Meldrum came up in the engine service from wiper to ^{fireman} ~~foreman~~ to engineer.

Q In what area?

A On the Kettle Valley Railroad at Penticton. He was later assistant superintendent and superintendent.

Q Mr. Mayne is the man who wrote the letter; what was his background?

A Mr. Mayne also started his railway career as an operator and later became a dispatcher and then chief dispatcher and assistant superintendent, superintendent, general superintendent, and subsequently general manager.

Q And is now?

A Is now Regional Vice-President, Prairie Region.

Q Will you just say what happened as a result of this proposal?

A At our initial meeting the employees' representatives asked with respect to

item 1.

Q That is the so-called diesel rule, Article 11, Clause (f), referred to earlier?

A That is correct. And item 3 with respect to the reduction in the current rates of pay in passenger service by 30 per cent. The chairman of the employees' committee asked whether the chairman of the management committee was serious with respect to the company's proposal and of course --

MR. LEWIS: Which one of the two?

MR. SINCLAIR: Of the company's proposal, he said.

MR. LEWIS: Is it proposal or proposals?

THE WITNESS: Of the two proposals which I referred to; whether the committee was serious about them and the chairman of the company committee informed them that they were very serious about them.

BY MR. SINCLAIR:

Q Would you mind addressing yourself to the Commission so they will be sure to hear you?

A Of course, with that understanding the company's committee was informed that --

Q Informed by whom?

A By the chairman of the employees' committee that there could be no negotiations as long as those two items remained in the company's request.

Q And then subsequent to that?

A Subsequent to that we were instructed that the management was not prepared --

Q You were instructed by whom?

A By our chairman of the company's negotiating committee, who received instructions, that they were not prepared to force the issue to a final determination at that time.

Q So what did you do?

A We withdrew the items and proceeded to make a settlement.

Q Then the next round, Mr. Shepp, in connection with this matter was when? Were you a member of the negotiating committee dealing with the firemen's union in the 1956 revisions?

A Yes, I was.

Q Mr. Gossage was chairman of the company's committee?

A That is correct.

Q And he has described to the Commission what took place?

A That is correct.

Q You heard his evidence?

A I did.

Q Is there anything you wish to add?

A No, I do not think I can add anything to what has already been said.

Q Looking at Exhibit 1A, the diesel rule, some reference was made earlier in these

proceedings to Article 11(f), which has to do with the exception requirements concerning firemen on all locomotives, the exception applying to yard diesels of 90,000 pounds or less weight on drivers. Do you know of that exception?

A Yes, I do.

Q That is page 24 of Exhibit 1. What is your comment on that exception based on your experience as a yardman and yard foreman and yard supervisor?

A The article in the rule permits the operation of a diesel yard switcher with less than 90,000 pounds weight on drivers in yard service without the employment of a fireman.

Q That is what it says. Has the company any of those engines?

A The company has just put into service; the delivery of the first two has just been made and I understand they were put into service within a few days ago.

Q Do you know what the company's intentions are with respect to additional units, say in 1957, of this type?

A Yes, I believe that they are having more to be delivered this year.

Q When they are delivered do you know the intentions of the company with regard to the manning of those locomotives, what

crews they will put on them; do you know that?

(2)

A Yes, they will be manned with just an engineer.

Q In regard to operations at Vancouver when you were superintendent, did you ask for any of this class of power?

A Yes, I did ask for two of them.

Q Why did you not ask for more?

A Well, I asked for them so that I could work them in locations where they would be suitable because of the nature of the traffic in that location.

Q What type of service can they perform?

A They can perform virtually the same type of service that the heavier type can perform, with the exception of course that they are not -- they have not sufficient weight to handle heavy traffic in large volume.

Q Do you think the ability of the engine to handle traffic is a factor in governing the number of engine crew that is required on the engine?

A No, I do not.

Q Have you in your travels observed switching with these under 90,000 pounds weight on drivers diesels on other roads?

A Yes, I have.

Q Would you give us an example and tell the Commission where it was that you made your observations?

A I made observations of one of that type locomotive working on the Rock Island Railway in Des Moines, Iowa, where that type of engine is employed in their station area.

Q When did you do this?

A Last month, February.

Q February 1957?

A That is correct.

Q Tell the Commission what it was doing?

A That engine was doing all the station work, handling passenger equipment, mail and express cars in considerable volume, and also doing industrial work in the immediate area.

Q What do you mean by industrial, freight switching?

A Industrial freight switching.

Q How many of an engine crew were on it?

A One man, the engineer.

Q Based on your experience and observations, what would you say about the work, whether it was proceeding satisfactorily or efficiently and with safety?

A I would say the work was proceeding extraordinarily satisfactory, from my observations. I watched its performance in switching passenger trains, which I thought was performed excellently and in the minimum of time.

Q How many of a ground crew was working with

that engine?

A There were three of a ground crew.

Q Did you notice any change from what you were used to when they were doing industrial switching with this engine at Des Moines as compared to what you were accustomed to on the Canadian Pacific?

A No, I did not. It was performing exactly the same as we perform our industrial switching on the Canadian Pacific.

Q Have you ever personally worked with this engine or observed this engine on the Canadian Pacific, and I am referring to the under 90,000 pounds on drivers; have you observed them working?

A No, I have not.

Q Mr. Shepp, what has been your observation of the effect of the introduction of diesel electric locomotives in yard switching, its effect upon the work of the fireman?

A The work of the fireman naturally disappeared completely with the automatic production of power.

Q What did he continue to do? Has he any other duties at all?

A None to my knowledge other than to maintain a lookout on his side.

Q In your opinion -- you may have answered this before but perhaps not directly -- is it necessary for him to do that on a

yard engine?

A No, it is not. I expressed my opinion before.

MR. LEWIS: I did not hear that.

THE WITNESS: I said, no it is not; I expressed that opinion before.

BY MR. SINCLAIR:

Q On a yard diesel, Mr. Shepp, are there any mechanical duties to be performed on the part of the fireman?

A No, there are no mechanical duties on a yard diesel for a fireman to perform.

Q Supposing something goes wrong with a yard diesel when you are supervising it; would you tell the Commission what happens when a yard diesel stops?

A When a yard diesel stops -- we have a maintenance staff on duty around the clock and if anything should occur that would cause a diesel engine to stop, one of the crew would call the maintainer -- the engineer would call the maintainer and he would go down and make the adjustments.

Q Do you know -- if you do not, say so -- whether yard switching diesels are equipped with protective devices such as ground relays and low lube devices and matters of that kind?

A No, I do not know particularly. I believe that some types are equipped with ground

relays, but I have not delved too deeply into that field. I have more or less left that to the mechanical officers. I do not know definitely.

HON. MR. MARTINEAU: Would you please speak just a little louder?

BY MR. SINCLAIR:

Q Mr. Shepp, have diesel engines, that is yard diesels ever operated in Vancouver to your knowledge without firemen?

A Not without a fireman regularly assigned, although during recent observations I did observe an engine working without a fireman.

Q In Vancouver?

A Yes, in Vancouver.

Q What date was that?

A That was last February 16.

Q Just tell the Commission about that?

A On that night I accompanied the superintendent to make some observations in the yard and during those observations I saw an engine working without a fireman.

Q Was it a diesel?

A A diesel.

Q Did you keep it under observation?

A I kept it under observation for some time while it was switching, flat switching in fact; while it was coupling and pulling cars prior to flat switching them. For a considerable time while flat switching

was in progress. We climbed aboard the engine and asked the engineer where the fireman was and he said he had not appeared for duty; he said he had telephoned to the shop for the fireman. We asked the yardmaster --

Q How long did you actually see the engine working without a fireman, this yard diesel working without a fireman?

A I saw him actually about forty minutes.

Q You then were going on to say something about the yardmaster?

A The yardmaster informed us that the engine had been working regularly and that he was not aware that there was no fireman on the engine; that the engine and crew had been working continuously from the start of their shift.

Q What time did that shift start, do you recall?

A That shift started at 10.30 p.m.

Q And you made your observations at what time?

A At about 2.15 a.m.

Q 2.15 a.m.?

A A.m.; 2.15 a.m. until approximately 3 a.m.

Q And that assignment had been working since 10.30?

A Since 10.30.

Q You say the yardmaster did not know there was not a fireman on it?

A That is correct.

MR. LEWIS: Could we have the name of the engineer and of the fireman who was not there?

THE CHAIRMAN: You will supply that?

MR. SINCLAIR: Glad to.

MR. LEWIS: Does the witness know?

BY MR. SINCLAIR:

Q Do you know?

A The engineer's name was Fortie.

Q And what was the name of the fireman who was not there?

A His name was Sharp.

Q Why was he not there, do you know?

A In subsequent investigations it developed that there was an error in the booking off. One of the crew clerks claimed that Fireman Sharp had booked off on the previous day for one day only and therefore expected him to appear for work. However, in confirming the booking off, after conversation, after the superintendent questioned Sharp as to his reason for not appearing for duty, Sharp informed him that he had booked unfit and had not booked off for one day; that he had booked unfit and therefore --

Q Did Sharp say he had been working any time on this assignment, or was he asked that?

A I beg your pardon?

Q Did Sharp say he had been working any time

during the assignment to which you refer, that is on February 16, commencing at 10.30 p.m.?

A No, Sharp had no intention of coming to work that night because of his previously having claimed that he had booked unfit.

Q Have you ever seen engines operating in the Vancouver yard at any other time without firemen?

A No, I cannot say that I have.

Q In these observations you were accompanied by whom?

A By Mr. Flett, who was appointed superintendent succeeding me.

Q At Vancouver, Mr. Shepp, what part of the cost of operating a yard engine is attributable to the fireman's wages, do you know?

A About 15 per cent.

Q Where do you get that figure?

A The figure was supplied to me by our Accounting Department.

Q By the way, taking you back to Calgary in the days when you were a yardman and yard foreman, did you ever do switching at the station at Calgary?

A Yes, I did many times.

Q Has that station a lot of people around it?

A Yes, people walk up and down the platform.

Q Do they cross the tracks?

- (3) A Yes, they cross the tracks.
- Q Is there any kiosk there?
- A No, there is not.
- THE CHAIRMAN: What is that?
- MR. SINCLAIR: A kiosk, a facility to go under the track.
- BY MR. SINCLAIR:
- Q In switching there, how did you perform with people around?
- A Always on the engineer's side. Sometimes when switching when people were walking along the platform it was necessary to get up on the vestibule of a passenger car in order to relay a signal above the heads of people who were walking along the platform.
- Q Did you feel from the way you conducted it that you had the movement under complete control?
- A Oh, yes, without question.
- Q I should have asked you, and with permission I should like to ask you now in regard to those observations that were made in this yard in Vancouver in connection with the yard engine operating from 10.30 p.m. until 3.00 o'clock the next morning without a fireman. Was there any accident or anything like that in that period that was reported to the company?
- A No, there was no accident. There were two or three other yard crews working

this same area at that time.

Q And none of them complained?

A No, they did not complain. As I said before, the yard crews protect against one another.

Q If I may, I should like to turn now to the question of arbitraries. The Commission will recall that Mr. Gossage filed and explained Exhibit 5 which dealt with arbitraries on yard service, both steam and diesel, and separated as between the Eastern and Western Regions. The last column of Exhibit 5, the last two lines, had to do with yard service. Have you a copy of that?

A Yes.

Q I wonder if you would keep that before you. Would you look at that? Does that set out the arbitraries applicable to yards in the Eastern and Western Regions, both preparatory and final inspections?

A Yes, it does.

Q Mr. Shepp, taking Vancouver as an example, what arbitrary allowance would be paid a fireman for each steam engine shift he worked?

A He would receive 30 minutes preparatory and 15 minutes final; a total of 45 minutes.

Q Forty-five minutes per --

A Per shift.

Q And what is a shift?

A A shift is eight hours from the time the crew is required to leave the shop track; eight hours after the time it is required to leave the shop track.

Q So that on a normal assignment there would be eight hours plus 45 minutes on steam power, taking Vancouver as an example?

A That is correct.

Q He would be paid for that?

A Yes, he would be paid for that.

Q Based on your experience, how much of that time would ~~the~~ fireman be on the steam locomotive?

A Well, that is dependent upon the time the engine is released by the yardmaster and allowed to return to the shop track.

Q Basing it on your experience, give the Commission an idea of how long, generally speaking -- there will be exceptions, we know, to it -- what time would that be? How many hours and minutes?

A I would say it would be between seven hours and forty-five minutes to fifty-five minutes.

THE CHAIRMAN: Between what points?

MR. SINCLAIR: Shop track to shop track.

BY MR. SINCLAIR:

Q Is that correct?

A That is correct.

Q That is the time on the average that the engine is away, shop track to shop track?

A Shop track to shop track.

Q From seven hours and forty-five minutes to seven hours and fifty-five minutes. Based on your experience, how much of that time would be made up of preparatory duties and how much of that time would be made up of final inspection?

A Well, the preparatory duties of course --

Q How much of the seven hours and forty-five minutes, which you said would be shop track to shop track; how much of that time would be allowed, if any, for preparatory work or final work by the fireman?

A I would say there would not be any more than ten minutes of that time, both preparatory and final.

Q Would he have any other time? What is required of a fireman, Mr. Shepp, on a yard steam engine, for preparatory work?

A Well, it is dependent of course on whether the engine is doubling and what is done on the shop tracks.

Q Would you just explain that to us?
"Depending on whether the engine is doubling." What do you mean by that?
What do you mean when you say an engine is doubling?

A What is meant by that is that if an engine

is going to be supplied with a crew to work a succeeding shift; for example, if an engine is required to return to the shop track at 4.00 p.m. and is again required to leave the shop track at 4.00 p.m. with a new crew, then the shop staff must necessarily have some time to service that engine so the yardmaster would release the crew early, sometimes thirty minutes prior to the expiration of their shift.

Q In that kind of situation what would the fireman do who was going to take out the engine, in the way of preparatory work?

A He would get on the engine and go immediately after the shop staff were through with the preparation.

Q What preparatory work would he do? Would he have to do anything with his fire?

A He may have to build up steam, assemble a full head of steam. He may have to build up a little steam, although he can do that on his way out of the shop track.

Q What about the man who brought that engine in, after arrival at the shop track? He would be on final inspection time; what would he have done to it? What work would he as fireman do on that steam engine coming into the shop track?

A At Vancouver the engines are all oil fired.

Q All right, take the Commission in your memory to some place where the engines are coal-fired.

A Where the engine was coal-fired the fireman would bank his fire and see that the boiler had a sufficient supply of water before leaving the engine.

THE CHAIRMAN: You are still talking about the situation where the engine is doubling?

MR. SINCLAIR: Yes.

HON. MR. MARTINEAU: Why would he bank his fire if a new fireman was going to take over the engine immediately and the engine was going to be used again?

THE WITNESS: That is a normal requirement of a fireman. It is possible that the fireman who is returning the engine to the shop track would not be aware that another crew would be using it. He might have to leave the engine there and leave it sufficiently prepared so it would be looked after by the shop staff.

BY MR. SINCLAIR:

Q Would he do this work of banking the fire and filling the boiler with water after he arrived at the shop track?

A No; most generally it is done on the way into the shop track.

Q This is a hand-fired coal-burning engine we are talking about?

A Yes, sir.

Q What about the oil-fired steam engine?

THE CHAIRMAN: It would be nice to know what is involved in filling an engine with water.

THE WITNESS: That is, of course, a continuous responsibility of the fireman on a steam engine, to keep the engine supplied with water. When the engine is being brought to the shop track it is the responsibility of the fireman to see that the boiler is almost full of water.

BY THE CHAIRMAN:

Q How does he do that?

A By operating a valve which is located on his side of the engine. It is called the injector. It is that injector that is operated by the fireman to always keep a sufficient amount of water in the boiler.

BY MR. SINCLAIR:

Q How much preparatory work on an average would a fireman do on a steam engine, hand-fired, and how much final inspection work would he perform on a hand-fired steam locomotive, a locomotive that is doubling?

A Well, I would say that in both -- on preparatory he would not be any more than five minutes, and on final not any more than three to four minutes. *plus 5 min*

Q What does he do after that? *He gets off*

A He gets off and proceeds to the booking-in point.

Q How long would that take on the average?

A Depending on the distance from where he leaves the engine that he has to walk, it might be five minutes.

THE CHAIRMAN: Mr. Sinclair, I have not appreciated the distinction the witness is making between the time when an engine is doubling and when it is not.

MR. SINCLAIR: I had not covered that with him as yet.

THE CHAIRMAN: I thought you were going on to something else; all right.

MR. SINCLAIR: I was cleaning up the engine that was doing doubling.

BY MR. SINCLAIR:

Q On oil-fired steam engines is the time greater or less, preparatory and final?

A The time is less.

Q Why?

A Because all that is necessary is to reduce the oil flow and just make sure the mixture is right. There is no physical labour of putting oil in.

Q You do not bank?

A You do not bank.

(4) Q An oil-fired engine?

A No.

THE CHAIRMAN: Banking is the setting of draughts, is it?

THE WITNESS: No, it is putting coal

in the sides of the firebox so as to keep sufficient fuel in there to keep steam reasonably up.

BY THE CHAIRMAN:

Q Does that mean putting in more coal on that occasion than would be the case in firing the engine, for instance, when it is working continuously?

A No, not necessarily, but it means putting it a little heavier on each side and covering up the bright spots in the fire.

BY HON. MR. MARTINEAU:

Q Either moderating the fire or banking the fire?

A It is sort of smothering so it does not burn too brightly and lasts longer.

BY MR. SINCLAIR:

Q That was in connection with an engine doubling; what about a steam engine, not doubling?

A The same situation would apply in so far as the fireman returning an engine to the shop track.

Q What about the man taking out an engine that had not just come in but that had been on the shop track?

A That is dependent upon the amount of work and the amount of preparation that is done by the shop staff.

If there is not sufficient steam it is the fireman's responsibility to build up the

fire to see that there is sufficient steam so that he can go to work when he gets off the shop track.

BY THE CHAIRMAN:

Q How does he do that?

A By putting on the blower and firing the engine, building up the fire, raking it down if necessary.

BY MR. SINCLAIR:

Q Does that take long?

A In some cases it might take ten to fifteen minutes.

Q What is the usual practice; are the engines kept under steam in the shop under sufficient pressure to let them start out on their runs, or are they kept at a lower pressure? What is the practice as you have observed it?

A They are usually kept at low pressure until just before starting time of the shift and then the shop staff builds up the fire and steam.

Q The shop staff builds up the pressure before the engine moves out on assignment, is that right?

A That is right.

Q So in that case where a man is receiving preparatory and final inspection allowance of forty-five minutes, how much of that time do you think he would actually be

required to work?

A Well, in yard service I do not consider there is any necessity for --

Q I asked you how long you think he would be required to work in that time?

A I would say that he works on an average of seven hours and forty-five minutes to seven hours and fifty minutes.

Q And he gets paid for how much?

A For eight hours and forty-five minutes.

Q Therefore what is your proposal with respect to arbitraries on steam power in yards?

A That we pay the fireman from the time we require him to report for duty until he is released.

Q How would you do that?

A Well, at places where it was necessary to build up steam we would call them in sufficient time to have the necessary build-up of steam, but in most cases I believe the fireman should start at the same time the ground crew starts.

Q You are dealing with steam power now?

A Yes.

Q Coming to diesel power --

THE CHAIRMAN: Before you leave that. We probably have gathered by this time the functions of the fireman on a steam engine when the steam engine is running alone, but it might be just as well to know that what we have

is right. What does a fireman do on a steam engine when it is operating?

MR. SINCLAIR: Over the road or in the yard?

THE CHAIRMAN: In the yard, when it is operating.

MR. SINCLAIR: I can ask this witness but it was my plan -- I will do it if you wish me to -- to call an engineman who had actually run yard engines to describe that to you.

THE CHAIRMAN: There is no use doing it twice, if you have that in mind.

MR. SINCLAIR: I thought I had better call somebody who could give you that first-hand.

THE CHAIRMAN: Very well.

BY MR. SINCLAIR:

Q Turning to diesel power, Mr. Shepp --

THE CHAIRMAN: You are still within the area of doubling?

MR. SINCLAIR: I had finished doubling and was taking it when it was not doubling for steam engines. I did both types in the case of steam engines.

THE CHAIRMAN: I must confess then that I missed when you passed the area of doubling into the area of not doubling. What did the witness say the distinction was?

MR. SINCLAIR: He said in so far as bringing the engine in, there would be no

difference; in so far as taking it out, it would depend on how much steam there was in the boiler, what the pressure was and what the shop staff had done. Then I asked him what the shop staff usually did and he said usually they brought it up to sufficient power to move it off.

HON. MR. McLAURIN: And it might take ten to fifteen minutes in some instances to put the steam in shape.

MR. SINCLAIR: That is right.

THE CHAIRMAN: It was just your introduction to that that I apparently missed.

BY MR. SINCLAIR:

Q On diesel power, describe for the Commission the activities in connection with preparatory and final inspection work on diesel power; how much, taking Vancouver as an example again -- of course the Commission will know that they are higher for steam in the west than they are in the east, from Exhibit 5, but on diesel power they are the same on each shift -- with diesel power how much preparatory and inspection allowance would a fireman, at Vancouver again, receive?

A He receives fifteen minutes preparatory and ten minutes final inspection time.

Q That is a total of twenty-five minutes?

A That is a total of twenty-five minutes.

Q On each shift he gets paid?

A Eight hours and twenty-five minutes.

Q What if the engine does not come in on time, does he get overtime?

A Yes, he gets overtime.

Q This is the normal shift without overtime?

A This is the normal shift without overtime.

Q Eight hours and twenty-five minutes. Based upon your experience, on the average how much time would he be on the engine?

MR. LEWIS: I did not follow that. The engine does not come in on time; who gets overtime?

MR. SINCLAIR: The fireman.

MR. LEWIS: A fireman coming in, on doubling or not on doubling?

MR. SINCLAIR: A fireman coming in, whether the engine is doubling or whether it is going to remain on the shop track. If it does not get there by the time the shift is to quit that it has been ordered for, what happens to the fireman, to his pay?

BY MR. SINCLAIR:

Q Does he get paid or does he not?

A The fireman gets paid until the engine arrives at the shop track and if it does not arrive at the shop track within eight hours he gets paid overtime on the minute basis until he arrives at the shop track. If there is a succeeding crew, they are also on pay until the engine gets there

so that they can take it over when it arrives.

Q Then when it comes in on overtime and the engine crew has been waiting to take it out, you say they are on pay and the crew coming in are on overtime. Then when the crew comes off, on top of that do they get a final inspection allowance, the arbitrary?

A Yes, they do.

Q Is that at overtime rates?

A No, it is at pro rata rates.

Q That is what this addenda means on this exhibit.

HON. MR. MARTINEAU: I know what pro rata means, but how does it work? You say the arbitrary payment is made on a pro rata basis.

MR. SINCLAIR: Rather than at overtime rates; there is no penalty.

HON. MR. MARTINEAU: Standard rates?

MR. SINCLAIR: Yes, standard rates; no penalty. The penalty rates are generally time and a half and the priority rate is straight time.

BY MR. SINCLAIR:

Q Is that correct?

A That is correct.

Q On diesel power what does the fireman do when he comes on? Tell the Commission what he does before the engine leaves the shop track?

(5)

A Well, the only thing he does is to get a pail of water and probably sweep out the cab.

Q What is the water for?

A For drinking purposes while on shift.

Q And sweeping out the cab?

A Sweeping out the cab and --

Q Had he done anything before that?

MR. LEWIS: The witness did not finish; he was going on to say "and" something.

MR. SINCLAIR: I am sorry.

THE WITNESS: And he opens the seat box to see whether the flagging equipment, the flagging kit is intact.

BY MR. SINCLAIR:

Q What would he have done before that? Is he required to book in, in Vancouver?

A Yes, he is required to report at the booking-out point and he registers his appearance. There are lockers supplied there and sometimes he may wish to change his clothes.

Q Does the company require him to wear a uniform of any kind?

A No, it does not, but for the convenience of employees lockers are supplied.

Q Have you ever seen them doing anything else before they take out a diesel engine?

A No, I have not. I have observed a fireman opening the door on some of the diesel

locomotives and looking inside. That is an observation I just made recently. I never noticed it before to any great extent.

Q What are they doing then, do you know?

A I believe that on the locomotives in Vancouver, the Baldwin, the governor is located in the front and it is perhaps to look at the governor. I do not know for what purpose. But the maintainer is also present and he makes any adjustments that are necessary on all these engines when they pass out.

Q Have any instructions been given to firemen concerning mechanical checks like that?

A Not to my knowledge, no.

Q Have they been told not to do it?

A Some time ago we issued verbal instructions through the divisional master mechanic that we did not wish firemen to touch anything.

Q When you say some time ago, how long ago would that be?

A About two years ago.

Q About two years ago?

A Yes.

Q You said earlier that you had not noticed it before but recently you had noticed it?

A I have noticed that they are opening the doors, but I did not notice them doing anything.

Q By the way, how long would you estimate it

would take to get a pail of drinking water and sweep the deck of the diesel engine?

A About three to four minutes.

Q Then they go out on the switching assignment?

A They would be ready but sometimes the ground crew are not ready to take out the engine. They would wait sometimes for a member of the ground crew to let them out.

Q What would the ground crew have been doing?

A The ground crew; on the beginning of a shift the yard foreman has to secure his instructions from the yardmaster and sometimes there is delay in preparing instructions for the yard foreman. Therefore there is a little delay in getting the engine off the shop track.

Q Does not the yard foreman or the yardmaster; do they not do that kind of work in their preparatory time?

A They do not receive any preparatory time.

BY THE CHAIRMAN:

Q Leaving aside the question of arbitraries. When a fireman books in on a shift, does his pay start from that moment?

A His arbitrary payments start.

Q Leave aside the question of arbitraries. He books in?

A Yes.

Q I will put it this way: does the eight-

hour period begin to run then?

A No, it does not. The eight-hour period is the period of the assignment and the ground crew are assigned on that basis. For example, an assignment commencing at 8.00 o'clock and ending at 4.00 o'clock will be known as the 8.00 o'clock assignment. The yard crew would appear on duty at 8.00 o'clock and they are off duty at 4.00 o'clock. If they are required to work until 4.15 they receive fifteen minutes' penalty overtime.

Q If they are required to work only until 3.30, what then?

A They receive eight hours' pay.

Q Would the same apply to the fireman?

A The same applies to the fireman except that the fireman receives in addition fifteen minutes prior to the commencement and ten minutes at the conclusion of the shift; that is, the hours of the shift.

BY MR. SINCLAIR:

Q That is on diesel power?

A Diesel power.

THE CHAIRMAN: Is there any difference in steam except for the amount allowed for arbitraries?

MR. SINCLAIR: No difference.

BY MR. SINCLAIR:

Q Taking the average diesel assignment, how

long would that diesel engine be off the shop track, shop track to shop track, that is based on your observations?

A On the average it would be about seven hours and thirty minutes to forty minutes.

Q And it would be off the shop track -- as you said in answer to the Chairman -- for eight hours?

A That is correct.

Q That is correct?

A That is correct.

BY HON. MR. McLAURIN:

Q What is a shop track? Is it at the shop or is it a track that might have half a dozen locations?

A A shop track --

BY MR. SINCLAIR:

Q Would you answer Mr. Justice McLaurin's question?

A A shop track is designated as a location where engines start from and return to. Normally diesel engines only have one track because of the service requirements that are necessary. The fuel pumps are located at that track and the sand facilities and so on. There may be several of those locations in various large terminals, and on a roundhouse track where diesels are also dispatched they may be dispatched from three or four different

tracks, but the designation of shop track in a roundhouse may mean three or four different tracks within the same area.

BY THE CHAIRMAN:

Q Do you mean then that a shop track is really the point where an engine is delivered to the engine crew by the shop crew and where the shop crew take delivery of the engine at the end of the run from the engine crew?

A That is correct.

BY HON. MR. McLAURIN:

Q At the yard in Vancouver -- I know Vancouver slightly -- how many of those shop track points would you have, a dozen of them? I am not asking you to give the number accurately, but are they dispersed all over the place?

A No, in Vancouver, as far as yard assignments for diesels are concerned, they are all in the one location, right around the station, which you likely observed.

Q I went to the yard office and one crew got off and another crew got on.

A That is the diesel shop track so far as Vancouver yard engines are concerned.

----Recess.

---After recess.

JOHN SHEPP, recalled.

EXAMINED BY MR. SINCLAIR:

Q Mr. Shepp, at my request you made a number of detailed observations in the Vancouver yards, did you not?

A Yes, sir, I did.

Q And you prepared a report on them?

A I did.

MR. SINCLAIR: I would ask to have this filed. It consists of twelve reports of observations made by Mr. Shepp. These are photostats of the reports he made which were typed up in his office.

THE CHAIRMAN: On what subject?

MR. SINCLAIR: These show what actually happened with respect to arbitraries, both final and preparatory, and also riding on the engines in the yard. There are twelve separate observations set out in these reports.

THE CHAIRMAN: Is there any objection to this document, Mr. Lewis?

MR. LEWIS: No, Mr. Chairman. Mr. Shepp said he prepared them.

MR. SINCLAIR: There are twelve reports clipped together.

THE CHAIRMAN: Do we want to give the separate pages separate letters?

MR. SINCLAIR: I would suggest we do that.

THE CHAIRMAN: All right, it will be Exhibit 37A and so on.

MR. SINCLAIR: The top one "37" and the second one "37A".

THE CHAIRMAN: Do they deal with different matters?

MR. SINCLAIR: No, they are all the same, the results of observations of actions of firemen in yard diesels during switching operations.

THE CHAIRMAN: That will be A to L, then.

MR. LEWIS: May I respectfully make a suggestion? Are they by any chance numbered?

MR. SINCLAIR: No, they are not numbered.

MR. LEWIS: I thought if they were numbered we could just follow the numbers.

THE CHAIRMAN: There will be no 37, but it will be 37A and so on. I wonder if it would not be a better idea to just number the pages?

MR. SINCLAIR: Perhaps that would be better.

EXHIBIT No. 37 -- Record of observations of actions of firemen (12 pages).

(6) MR. LEWIS: I do not know what is in these but I think it might facilitate matters if I say now that I may have to request that

I be allowed to reserve my cross-examination on them until I have been able to learn more about them. It may not be necessary. I do not know what is in them.

MR. SINCLAIR: May I make this suggestion, Mr. Chairman, right at this time if it is appropriate to do it. I have a witness who has come some considerable distance and I would like to have him released. My plan was to finish with Mr. Shepp today and perhaps Mr. Lewis would want to have a little time for this witness.

THE CHAIRMAN: Do you want this witness to step down and the other witness to come on?

MR. SINCLAIR: I think that would give Mr. Lewis an opportunity to have a full transcript of Mr. Shepp's testimony and that might assist him in his preparations.

MR. LEWIS: You mean you would like to put the other witness on immediately after Mr. Shepp?

MR. SINCLAIR: It does not make any difference to me. I was just trying to give you time, but if you would rather cross-examine, that is all right.

MR. LEWIS: I appreciate my friend's consideration. I thought it might help with this other witness who has come a long distance and who wanted to leave.

MR. SINCLAIR: He is prepared to remain here until he can be called in his regular turn.

MR. LEWIS: I am grateful as well as appreciative.

THE CHAIRMAN: You are going to finish in chief with this witness and then call the next witness?

MR. SINCLAIR: That is right.

BY MR. SINCLAIR:

Q How did you make these checks as far as preparatory and final inspections were concerned? Were they made without the men knowing they were being made, or what was the situation?

A The preparatory and final inspection checks were in part surprise checks and in part they were not. I was at the location in many instances sitting in one of the diesel engines on the track while others came in.

Q Did you tell the men you were making these checks?

A No, I did not.

Q Why did you not do that?

A I wanted to get a comprehensive picture in view of the fact that I knew I would be required to present evidence to this Commission and I wanted to be in position to be accurate in my description of the evidence that I was presenting.

- Q This is the key question on arbitraries before this Commission and I think we may state it again before we look at these checks in regard to yard service. What is the company's proposal with respect to arbitrary allowances for preparatory and final inspections in regard to yard service?
- A The company's proposal is that arbitraries in yard service for firemen should be eliminated entirely.
- Q How would the men be paid?
- A They would be paid in the same manner that the ground crews are being paid.
- Q How is that again?
- A They will get eight hours minimum from the starting time of their shift and overtime at pro rata or at penalty if they are required to work overtime.
- Q That is, they are on a minute basis?
- A On a minute basis.
- Q You would bring the firemen into conformity with the yard crew time schedule?
- A That is correct.
- Q Looking at these, did you make the actual time checks?
- A Yes.
- Q Taking this Exhibit 37, would you just go through it as quickly as you can and direct the attention of the Commission to any significant parts? Take first the

first page of Exhibit 37.

A Well, for example, Exhibit 37, page 1, starting time of assignment 7.00.

BY THE CHAIRMAN:

Q What does the "k" mean?

A O'clock; that is a common phrase in railway time. The engine for this crew arrived on the shop track at 7.16. The fireman arrived at shop track at 6.55 and he boarded the engine immediately it stopped and the other crew got off. The fireman was observed to sweep the deck and secure a pail of water. The engineman looked around the engine and blew down the air reservoir. The engine moved off the shop track at 7.21. The fireman had performed the duties that I have recorded here and was sitting in his seat prior to the engine moving.

Q Excuse me, I just want to make concrete what I inquired about a few minutes ago. The fireman arrived at the shop track at 6.55. When did he book in?

A He booked in prior to that. I did not check the fireman at the booking-in point, but in accordance with the arbitrary allowance he was required to be at the booking-in point at 6.45.

Q That is fifteen minutes before starting time?

- A Fifteen minutes before starting time.
Presumably he was there because he arrived;
he was there at least ten minutes before
because he arrived at the shop track at
6.55, which was five minutes before
starting time.
- Q The engine did not get to that point until
7.16?
- A That is correct.
- Q When did the fireman's eight-hour time
begin, would it run from 6.55?
- A No, at 7.00 o'clock. That is the start
of the assignment, the starting time of
the assignment.
- Q So he was required to book in at 6.55?
- A At 6.45.
- Q I am sorry, 6.45?
- A Yes.
- Q And he got thirty minutes preparatory
allowance?
- A Fifteen minutes in diesel service.
- Q Fifteen minutes. Then he is paid at the
pro rata rate from the time he books in
until 7.00 o'clock, which is the time of
the assignment?
- A That is correct.
- Q Then his eight hours begin to run at
7.00 o'clock?
- A After 7.00 o'clock.

BY MR. SINCLAIR:

Q You were going to refer to a particular item?

A If you drop down to item (b).

Q Just before you do that; that was during the shift. Perhaps you had better do it the way you want.

A I think I will follow it in chronological order. Dropping down to item (b), which is a record of what was observed during a movement while I was in the cab with the crew -- pardon me, I must start at (a) in order to give you a comprehensive picture. This reads:

"Number of times signals relayed through fireman and position of ground crew at time. None. When riding with this crew, they were pulling a drag of cars westward from the G Yard with the engine headed west and the yardman riding the front of the engine to a point on the B Yard lead, where engineer had unrestricted view of lead, at which point yardman got off to be in position to relay signals."

BY THE CHAIRMAN:

Q The yardman there would be the engine follower?

A The engine follower. The second item is as follows:

"Number of times fireman called engineman's attention to conditions observed on left side and position of ground crew at time: during the above movement, the engineer asked fireman how it looked, and fireman replied 'All clear'. Fireman made second observation and said 'All clear'. During both of these observations the yardman was riding on the leading end of the engine."

BY MR. SINCLAIR:

Q On what side?

A On the engineer's side.

Q Have you any comment to make on that?

A I think I should refer now to item (d) which reads:

"General comment on actions of fireman during switching operations: during this entire switching movement, engineer had head out of window and was taking signals from ground crew, and when go ahead signal received, he turned around and glanced in the westward direction and turned back to take signal from ground crew. Fireman was sitting in his seat looking out of window."

Then the final note:

"Describe final inspection duties

"performed, if any: engine stopped on shop track at 13.45 --"

The engine was relieved from duty early for some reason. I do not know why.

Q What was the shift time?

A The shift time was from 7.00 o'clock to 3.00 p.m. You will note that we are using the western system, which is the 24-hour system, and my note reads that the engine stopped on the shop track.

Q The assignment would be 7.00 k to 15.00 k?

A My note reads:

"Engine stopped on shop track at 13.45 k --"

That would be 1.45 p.m.

"-- engine crew off and walked to booking-off point in ten seconds after engine stopped."

Q How much would the fireman get paid on this assignment?

A The fireman would receive payment for eight hours and twenty-five minutes.

Q Then Exhibit 37, page 2. Have you any comment to make on page 2? The starting time of the assignment was 7.15?

A That is right. Fireman arrived at shop track at 7.10 but the engine did not arrive at the shop track until 7.31. Here again the fireman swept the deck of the engine and outside platform, checked

flagging kit and secured pail of water. The engineer walked around engine and blew down air reservoir. The engine moved to west end of station track and coupled to mail car and while waiting for mail to be unloaded, fireman was in reclining position in his seat. Item (a) reads:

"During switching operations:

number of times signals relayed through fireman and position of ground crew at time. When riding with this crew and switching at west end of station yard and coupled to train No. 1 for movement through tunnel, engine was headed west and yardman rode front of engine to tunnel entrance and after he had observed that all was clear and route properly lined, he gave engineer proceed signal and entered cab of engine to ride through tunnel."

Item (b) which is headed "Number of times fireman called engineman's attention to conditions observed on left side and position of ground crew at time." My note here reads:

"After yardman entered cab, fireman told engineer that route was clear and that the approach signal was yellow. Engineer had his head out of window and also observed this

"condition. All movements on engineer's side and no signals relayed through fireman."

Then the next item is headed "Number of times engineman asked fireman for information re conditions on left side and position of ground crew at time" and here my comment is "None."

Then the next item (d):

"General comment on actions of fireman during switching operations: as movement approached tunnel exit yardman got out of cab of engine, left front door, and walked along the side of the engine to the front on engineer's side to be in position to observe switches en route into yard."

On checking the final time on this crew it will be observed that the crew was on overtime. The engine arrived at the shop track and stopped at 16.15, which is 4.15 p.m., and the engine crew both walked out of cab within ten seconds to booking-off point.

Q Mr. Shepp, for example, how long would you have been, during the switching operations, keeping this engine -- this time Engine No. 7067, which is referred to on page 2 of Exhibit 37 -- how long would you have kept the engine under observation during

switching operations?

A Oh, we would be riding with the engine for between thirty minutes to an hour, and in some cases we were with the crew on the engine for more than one hour, but we would also be observing the operations of the crew within the area from the ground.

Q All right. I do not know that you have to read each of these as they are available to be read by the Commission. Perhaps you could just go through them and refer the Commission to the highlights which you feel you would wish to draw to their attention and to which you would like them to pay particular attention, although I am sure they will give full attention to it all.

(7a) Looking at Exhibit 37 is there anything in that in particular you would like to draw to the attention of the Commission?

A Yes. Item (b) is particularly significant because the movement was being made with the cab end of the engine leading and the engineer's view was complete. The fireman did not say anything. The engineer was working with his head out of window and watching signals from yardman on his side and did not ask fireman anything. The fireman was just riding on the engine looking out of the window.

The final time in this case was

similar to but a little longer, thirty seconds before they got off the engine.

Q Exhibit 37, page 4, is there anything in particular there?

A I have made a note of this one in particular, with particular reference to item (b). My note reads:

"When backing two passenger cars into shop repair track, engineer had head out of window and was watching signals from ground crew on his side. Fireman watching in direction of movement on his side gave engineer verbal car signals by calling three cars followed by two cars, but engineer did not reply account head out of window and in direct view of yardman's signal."

Being present in the cab I question whether the engineer heard the fireman's verbal remark.

Q You do not think he did?

A No, I do not think he did, but they were not necessary because he was in direct communication by signal exchange with the ground crew.

Q That illustrates the evidence you gave earlier?

A That is correct.

Q Is there anything more on sheet 4 in particular?

A Nothing more on sheet 4 in particular.

Q What about sheet 5?

A On sheet 5 I made a note:

"During the westward movement, fireman did not say one word to the engineer. Ground crew were on engineer's side."

And then the next note:

"When the switching backward commenced, engineer asked fireman if he could see any sign of crew on his side, and he replied 'No, can't see a thing', at which time engineer said 'O.K., I see them.' Ground crew were on engineer's side."

There is no particular significance in the final in that instance.

Q Then page 6 of Exhibit 37?

A In this particular instance I have a note with respect to item (d) which reads:

"When riding with this crew, they pulled a drag of about 25 cars to the east end of the G Yard and switched the entire drag in two cuts. Engineer in making reverse movement turned to observe conditions and when approaching crossing blew his whistle and rang bell so that towerman could lower gate and he also kept looking forward for a stop signal from the

"ground crew. Fireman did not say word throughout this switching but had his head out window and looked in both directions."

Q Anything on sheet 7 of Exhibit 37 in particular?

A On sheet 7 I have a little note with respect to item (d) which reads:

"Account cab end leading, engineer had complete view on approaching crossing and rang his bell and blew whistle for towerman to lower gate. Ground crew working on engineer's side."

Then item (c):

"Fireman sitting on his seat with windows closed and did not say a word during the switching movement in this area."

The average final time was taken.

Q Then sheet 8 of Exhibit 37?

A I have a note on item (d) which reads:

"When riding with this crew, they had switched the loads out of the B.C. Sugar Refinery Company and were pulling the loads into the G yard. Yardman was riding the leading side step of the engine which was headed west and was stopped clear of the lead by a signal from another crew

"who were working on the lead at the time. Yardman proceeded to the switch and when the movement cleared he opened the switch and gave signal on engineer's side, proceeded out to lead and switched the cars into B Yard, and then proceeded to the west end of the G Yard and through the crossovers towards the tunnel. Fireman did not speak during this movement and was looking out with window closed."

I would like to draw attention to this particular instance where the signal, after the yardman lined the switch, could have been given to the fireman, although he crossed the track and gave the signal direct to the engineer, which is the better and safer way to operate.

Q Then sheet 9 of Exhibit 37?

A I have some notes here on item (b):

"When backing in to couple with other cars and engine pushing six cars around curvature on fireman's side, fireman called three car lengths but engineer replied I've got it here as he was working with his head out of window and ground crew were spread out to relay signals."

BY THE CHAIRMAN:

Q What does that mean, "fireman called three car lengths"?

A That means that there was a space of three car lengths before the movement that was being made, to reach contact with other cars. There is no particular significance in the final; it was the same as the others.

BY MR. SINCLAIR:

Q Sheet 10 on Exhibit 37?

A My note with respect to item (b) and the heading "Number of times fireman called engineman's attention to conditions observed on left side and position of ground crew at time" reads:

"When pulling out of elevator to leave yardman was riding front of engine with fireman looking out in direction of movement and advised engineer all clear, and also drew engineer's attention at this time to Train 809 passing with no signals. Fireman also called engineer's attention to another yard crew working on the lead head of this movement, but yard crew on other movement had a yardman on the leading end to protect their movement."

Then with respect to item (d):

"When riding with this crew,

"particular attention was given to the nature of the work, as the trackage in the elevator territory is on heavy curvature and yard crews must position themselves to observe signals. In each case this was done without difficulty and when forward movement made, the engine follower rode the front of the engine."

(8) There is no particular significance in the final.

Q Sheet 11 of Exhibit 37?

A I have a note there in respect to item (d) reading:

"When riding with this crew, they were pulling and loading the 'Princess of Vancouver' at the barge slip, which is their regular assignment. The pulling and loading of this ship is governed by fixed signal indication which are activated by the yard crew on the ship and at the end of the slip. Fireman was sitting in his seat looking out in direction of movement."

Q Sheet 12 of Exhibit 37?

A I have a note with respect to item (d):

"During this entire movement, the yard crew were affording the necessary protection and were in their proper position on top of the

"cars when they were being pushed toward the G Yard. The fireman remarks as to conditions on his side were superfluous because ground crew had already observed the condition."

Q Taking these twelve pages as a whole, what is your comment on the observations you have just reviewed with the Commission? Was there any one of those movements where either a fireman was required to conduct it safely or efficiently?

A No, sir, there is not one. There was no duty or assistance that a fireman could have rendered on those particular occasions that the ground crew did not have fully covered, in so far as the observations were concerned.

Q As far as you saw them, is that what you mean?

A Pardon?

Q So far as you saw them, is that what you mean?

A Yes, that is right; my observations.

Q I asked you to check the records of the Vancouver Division for the year 1956 when you were superintendent at that yard and to take off the discipline and train accident items in Vancouver terminals. You have done that?

A Yes, I have.

Q You have prepared a statement setting out the discipline to firemen and a statement of train accidents?

A Yes.

MR. SINCLAIR: I would like to have this filed. It is headed "Firemen disciplined, Vancouver Terminals, year 1956," and the second sheet is headed "Train accidents, Vancouver Terminals, year 1956."

THE CHAIRMAN: Are those two separate statements?

MR. SINCLAIR: Two separate statements.

THE CHAIRMAN: Perhaps they had better be marked separately.

MR. SINCLAIR: There is reference on the first sheet to details which appear on the second sheet. For instance, the item of March 2 was in relation to a train accident which is referred to on the second sheet. That is why I put them together.

EXHIBIT 38 -- Statement of
discipline and
train accidents,
Vancouver, 1956.

BY MR. SINCLAIR:

Q What are your comments in relation to that?

A I should like to draw attention to item 2.

Q Was this all the discipline assessed against firemen in the Vancouver Terminals in 1956?

A Yes, sir, with the exception of discipline assessed to firemen for failing to have

their watches inspected. I did not include that.

Q What in particular do you wish to draw to the Commission's attention?

A I would like to draw attention to item 2, to an incident that occurred on March 2 where fifteen demerit marks were issued against a fireman's record and thirty demerit marks against an engineer for an accident that happened. I should like to give a brief description.

Q The description is laid out on sheet 2, I take it?

A Yes. The description is the first item on sheet 2. I would like to read the description, which is as follows:

"At 6.10 a.m. on March 2nd while making back-up move from yard track out onto lead with four cars coupled to front of engine, yard diesel 7071 side-swiped one car of another yard movement being made on lead track. Both the engineer and fireman had an unobstructed view of the lead track through the rear windows of the diesel and were in a position to observe the conflicting movement on the lead track. The yardman acting as engine follower remained at the lead switch and as soon as he saw the engine

"moving he gave violent stop signals, also shouted, to attract the engineer's attention but stop was not made in time to avoid the side-swipe. The engineer was assessed 30 demerit marks for failure to observe that the route was not lined for his movement in time to stop clear of the conflicting movement. The fireman was assessed 15 demerit marks for failure to observe and warn the engineer that the route was not lined for his movement in time to stop clear of the conflicting movement."

BY THE CHAIRMAN:

- Q Let me understand that. The engine was backing up and therefore the cars at the time of the movement were being pulled?
- A Were being pulled.
- Q There was nothing in front of the engine in the direction it was going?
- A That is correct.
- Q How did the engine come to start at all?
- A Well, the engine was taken into the track and coupled to four cars and their task was to pull the four cars out. The field man rode the engine in and coupled it to the four cars and then went down and detached the four cars and gave the engineer a signal to back out.

Q He gave a signal for them to start?

A That is correct.

Q Where was the engine follower then?

A The engine follower remained at the switch to protect his movement out of the track and he gave a stop signal, but neither the engineer nor fireman were looking.

Q How far away was the switch from the engine when the engine started?

A About 150 feet.

BY MR. SINCLAIR:

Q Would the view of the engineer and fireman be the view as shown in Exhibit 35A?

A That is correct, it would be that type of view.

Q That is a back-up with that type of diesel. Why was the fireman disciplined? What responsibility did he have and why was he disciplined?

A Well, because he was a member of the crew. He was expected and the only duty that he has to perform is look out.

Q How do the rules set up responsibility for observance of the rules?

A The responsibility is divided between those who are in position to take the necessary action to avoid accidents.

Q Does the rule require everybody on an engine to observe that rule?

A The engineer primarily is responsible to

see that switches are properly set and that the route is lined for his movement, but if there is anyone else a member of that crew who is in position also to make such observation and fails to do so, he is also held responsible.

Q What do you call that kind of responsibility? What kind of responsibility is there under the operating rules in yards?

THE CHAIRMAN: Joint.

THE WITNESS: Joint responsibility, yes.

BY MR. SINCLAIR:

Q That is well known, is it not?

A Yes, of course it is well known.

Q What other comment have you to make on Exhibit 38?

A I would like to refer briefly to an item under July 12.

Q That is the sixth item on Exhibit 38?

A That is also recorded -- no, that is not recorded on sheet 2. Yes, it is on sheet 2, item 2 on sheet 2.

Q Is that March 12?

A July 12 -- no, I am sorry, that is wrong, that should be July 24.

Q What about July 12; is there anything particular in that or do you want to go to July 24?

A No, there is nothing very significant about July 12. That was just a switch

run-through. I would refer briefly to the item below that on July 24.

BY THE CHAIRMAN:

Q The item for July 12 -- so I may understand it -- "failure to ensure switch properly lined for movement resulting in switch being run through." Just what is that?

A Well, I will deal with that. That was an incident that occurred when a fireman was operating an engine and received a signal.

BY MR. SINCLAIR:

Q Where was the engineer?

A He was changing over with the engineer and the engineer was on the fireman's side and failed to observe it.

THE CHAIRMAN: That seems to be the answer to that.

BY MR. SINCLAIR:

Q Go on to July 24.

A On July 24 the record indicates that a fireman was assessed 10 demerit marks and an engineer 15 demerit marks for starting a movement without receiving a hand signal, resulting in a collision with another yard movement. The details are recorded on page 2 as follows:

"At 4.50 p.m. on July 24th while coupled to nine diesel units preparatory to turning them on wye track, Fireman J.J. Milford, who was

"operating the engine as a learner under the supervision of the engineer, started forward movement of yard diesel 6536 without receiving a signal from the ground crew. The leading unit of the nine diesels being shoved by unit 6536 side-swiped passenger cars which were being turned on wye track. Milford stated that he started movement because he heard two short whistle blasts given by another yard engine in the vicinity and reacted to this in error as a proceed signal. He was assessed 10 demerit marks for moving a yard engine without receiving proper signals. The engineer was assessed 15 demerit marks for failing to supervise the operation closely enough to prevent the fireman from moving the engine without signals."

BY THE CHAIRMAN:

Q Why would the fireman think that two short whistle blasts was a signal for him to move?

A That is a point that was most confusing. We could not figure out why he would do so.

BY MR. SINCLAIR:

Q That is what he said?

A That is what he said, but the indication particularly in this incident is one that

I have dealt with before, and that is the importance of the proper exchange of signals from the ground crew direct to the engineer.

HON. MR. MARTINEAU: What about October 20, the last item on Exhibit 38?

BY MR. SINCLAIR:

Q Mr. Justice Martineau has asked you to deal with the last item on the first sheet of Exhibit 38?

A The last item is a matter which concerns a violation of a train order rule. In this particular instance there was an interruption on the double track due to a wash-out and this crew had a train order which gave them rights over a portion of the westward track, which means they had to run a short distance against the current of traffic. Incidentally they were operating The Canadian, our best and fastest passenger train. When they arrived at the point where they should have taken, in accordance with their train order, that portion of the westward track that the train order specified, they stopped. In this instance the fireman had been over the eastward portion of the track earlier in the morning and at that time thought the portion of the track was serviceable. However, during the day the water disturbed the roadbed whereby the track became

impassable and therefore a restriction was placed on it and they were given orders to use the other track.

However, the fireman's influence with the other members of the crew, the engineer and the conductor and so on, resulted in the wrong track being taken and it was only by extraordinary good fortune that they got over it without being derailed.

For that reason the fireman was assessed 30 demerit marks. However, the significant factor in this particular incident is that you will notice that the engineer and conductor were assessed with heavier discipline because they are held to be more responsible for the movement of the train than is the fireman.

MR. LEWIS: Before moving toward adjournment for the day I should like respectfully to ask if my learned friend would be good enough to let me have a list of the names. I appreciate that he did not want to put the names on the record here, but I would like to have a list of those involved in these demerits.

MR. SINCLAIR: I will be glad to get them. I should like to say at this time that I have about ten or fifteen minutes more with Mr. Shepp and then, with your permission and with my friend's concurrence, I should like to call Mr. ^{Koster} ~~Carter~~ of Utrecht of the Netherlands.

---The Commission adjourned at 4.15 p.m. until 10.30 a.m., March 8, 1957.

ROYAL COMMISSION ON EMPLOYMENT OF FIREMEN
ON DIESEL LOCOMOTIVES IN FREIGHT AND YARD
SERVICE ON THE CANADIAN PACIFIC RAILWAY

5

PROCEEDINGS

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I N D E X

Witnesses

HEPP, John, Exam. by Mr. Sinclair	556
KOSTER, J. P. Exam. by Mr. Sinclair	574

Exhibits

No. 39 - No. of employees struck by moving locomotives or cars, Vancouver, 1956	559
40 - No. of trespassers struck by moving locomotives or cars, Vancouver, 1956	563
41 - Cross accidents, Vancouver ..	565
42 - Photo, Netherlands diesel- electric locomotive	590
43 - Photo, Netherlands diesel- electric locomotive	591
44 - Photo, 400-HP Netherlands diesel-electric locomotive ..	593

ROYAL COMMISSION ON EMPLOYMENT OF
FIREMEN ON DIESEL LOCOMOTIVES IN
FREIGHT AND YARD SERVICE ON THE
CANADIAN PACIFIC RAILWAY

Proceedings of public
hearing held at Ottawa,
Ontario, Friday, March
8, 1957

PRESENT:

Hon. R.L. Kellock,	Chairman
Hon. C.C. McLaurin,	Member
Hon. Jean Martineau,	Member
Douglas M. Fraser,	Secretary
A.R. Winship	Asst. Secretary

APPEARANCES:

D.W. Mundell, Q.C.	Representing the
C.J.A. Hughes, Q.C.	Commission
I.D. Sinclair,	Representing the
John Pearson,	Canadian Pacific
	Railway Company
David Lewis, Q.C.	Representing the
	Brotherhood of
	Locomotive Firemen
	and Enginemen

Friday,
March 8, 1957.

MORNING SESSION

--- The Commission opened at 10.30 a.m.

MR. SINCLAIR: During yesterday afternoon, sir, you, Mr. Chairman, asked me what type of ^{power} ~~car~~ you had been on in Cote St. Luc, Montreal terminal. I have made inquiries and have been informed that you were on a 1,000 horsepower yard diesel switcher No. 7039, on the hump and also a 1,000 horsepower switcher on the pulldown, being Engine No. 7079. Both of these engines are like Exhibits 35 and 35-A, that is, the same type.

THE CHAIRMAN: The first one you mentioned had this dead man control on it? Unless I am confused it did, because the engineer was telling me the various things he was operating and showed me what was under his foot. However, that is incidental. We will find that out.

HON. MR. MARTINEAU: You said No. 7039 and --?

MR. SINCLAIR: Yes, and 7079.

HON. MR. MARTINEAU: And they are about the same as --

MR. SINCLAIR: They are the same type exactly as in Exhibit 35 and the back view on Exhibit 35-A. You, Mr. Justice Martineau, I am informed, were on Engine No. 7038, that is a 1,000 horsepower that was on the hump and you were also on a 660 horsepower yard diesel being No. 6507 and also on another 660 horsepower being No. 6566.

In addition to that, I understand both you, Mr. Chairman, and Mr. Justice Martineau, were on car body types, road switchers and steam engines,

being the various types in the shops and on the shop track. That is the information that was given to me.

HON. MR. MARTINEAU: Did they tell you what kind I was on in the industrial yard?

MR. SINCLAIR: It says No. 6507, the mile end switcher, and that would be a 660 horsepower.

THE CHAIRMAN: Those two diesels that I was on that were in motion were yard switchers?

MR. SINCLAIR: Yes, sir, 1,000 horsepower yard switchers.

THE CHAIRMAN: And the other engine I was on in motion was a steam engine, I think it was 7034 --

MR. SINCLAIR: The 7,000 class, sir, is generally -- no, it was 3442.

HON. MR. MARTINEAU: What about the big one I was on, they called them covered wagons, I think.

MR. SINCLAIR: You were on, according to this note, on the shop track, the number I have got here is, Nos. 8652 and 8572, being road switchers and you were on car body type 1420.

THE CHAIRMAN: I should like to know if I am completely mistaken about the dead man control.

MR. SINCLAIR: I will certainly check, sir.

THE CHAIRMAN: That was the engine that was pulling the cars over the hump.

A-4

MR. SINCLAIR: That will be Engine No. 7039, and I will certainly check on that, sir.

JOHN SHEPP, Recalled

BY MR. SINCLAIR:

Q Mr. Shepp, at adjournment you were dealing with Exhibit 38 which concerned discipline in Vancouver terminals in the year 1956. You had dealt with March 2, July 12, July 24 and October 30, on the request latterly of Mr. Justice Martineau, and before you went down to the last one, I think you wished to draw the Commission's attention to one other one?

A Yes, I wish to draw attention to the discipline that was issued in connection with the item on this sheet that is recorded August 16, wherein a fireman on a yard diesel locomotive was sitting in a slouched position on the edge of the seat, with his feet up on the rest in front of the seat and it resulted in his falling off the seat when a coupling was made where he suffered some injury and this resulted in his being off work. He was disciplined because he was not looking after himself and sitting properly in his seat.

Q Looking at sheet 2 of Exhibit 38, you have

dealt with both of the cases there, and they are summarized and set out on the first sheet of this exhibit. Now, I want to deal with the main point on that second sheet, which is train accidents in Vancouver terminals in the year 1956. What is a train accident by definition on the railway, Mr. Shepp?

A A train accident is one where the cost to the company is in excess of \$375, exclusive of lading.

Q Exclusive of any cost for the content of the car?

A That is correct, the accident arising out of the movement of engine or cars.

Q Looking at sheet 2, how many train accidents as there defined did you have in Vancouver terminals in 1956?

A There were nineteen train accidents in Vancouver terminals during 1956.

Q And investigations were made of each of those?

A They were, yes.

Q And as a result what was the situation of the firemen in them?

A There were no cases where the firemen could have done anything to prevent the accident that took place.

THE CHAIRMAN: Are the two mentioned on page 2 not included in the nineteen?

THE WITNESS: No, they are not included in the nineteen. Perhaps they are. I had better modify that to say that with the exception of the two.

BY MR. SINCLAIR:

Q In only those two cases in the whole of 1956 in Vancouver terminals, did investigation show that the firemen could have taken any action, is that your position?

A That is correct.

MR. LEWIS: Mr. Chairman, may I ask my learned friend a question? First, I understand these investigations are recorded. The employees involved are questioned and a record is kept of the statements that they make. I think, in view of the evidence given on it, I would certainly like to see, and I see no reason why we should not have an opportunity of seeing, the files on all these investigations of the nineteen accidents.

THE CHAIRMAN: Any objection to that?

MR. SINCLAIR: I would be glad to get them. I presume the thing to do is to turn them over to my friend?

THE CHAIRMAN: Oh, yes.

MR. SINCLAIR: Subject to one thing, if there is any discipline involved that is still a matter of controversy between the company and any of the Brotherhoods that my friend will, as I am sure he will, respect the

fact that that discipline with any Brotherhood is still open?

MR. LEWIS: Oh, yes. I am not interested in anything else except to see the statements of the employees, and the accidents as they are then described, to see whether I agree with Mr. Shepp's judgment as to what the fireman could or could not have done.

MR. SINCLAIR: I do not know if there is any case in which there is discipline trouble.

BY MR. SINCLAIR:

Q The next exhibit I wish to put before the Commission is a statement which was also prepared by Mr. Shepp, and will be Exhibit 39, showing for the year 1956 the railway employees struck by moving locomotives or cars, Vancouver terminals. The word "railway" should be inserted ahead of the word "employees". It is railway employees.

EXHIBIT No. 39 -- Statement of number of railway employees struck by moving locomotives or cars, Vancouver terminals, 1956.

BY MR. SINCLAIR:

Q Looking at Exhibit 39, Mr. Shepp, what is your comment?

A Well, I have recorded two railway employees under this heading, and one of these employees

was a Canadian Pacific employee, the other was a Canadian National employee. The reason I have recorded him in this evidence is because he was struck on a joint section of our track at Vancouver.

A-2

Q Does this statement set out all the employees who were struck by moving equipment in Vancouver terminals in the year 1956?

A Yes, it does.

Q According to the records maintained by the company in Vancouver?

A That is correct.

Q Is there any comment you wish to make on either of these two cases or do you feel they speak for themselves?

A Well, they speak for themselves. However, I should like to read the notes as they are recorded. In the first case I have recorded this:

"At 8.10 a.m. on May 10th yard foreman H.D. Hudson was walking beside "L" yard lead track and suddenly stepped sideways toward yard diesel 7072 which was approaching him from rear at speed of about five miles per hour. Fireman saw Hudson step into path of diesel from left side and shouted to engineer but movement could not be stopped

"until Hudson had been struck by left leading footboard and dragged a distance of three feet."

Now, the comment I wish to make on that is that I do not wish to disparage the prompt action that was taken by the fireman in this case because most certainly he avoided, by his vigilance, an accident. However, I do wish to draw attention to the fact that had the ground crew been properly placed the accident might have been avoided.

Q Why do you say that?

A Because the investigation did not reveal the position that the ground crew -- this was a light engine movement and the engine follower or one of them should have been on the front of the engine where he could have had a proper observation and perhaps shouted to Hudson.

Q That is the man on the ground?

A To the man on the ground.

BY THE CHAIRMAN:

Q Does that mean that this movement was taking place in breach of the rules?

A It was not exactly a breach of the rules because the fireman, of course, was on the left side of the engine and the yard man did not ride --

Q No, what I am speaking about is the absence of the engine follower in his proper place. Should he not have been on the front of the engine?

A He should have been on the front of the engine.

Q That is what I meant; was that not a breach of

the rules?

A It is a breach of the proper and safe operating practice.

Q When you say that this yard foreman suddenly stepped sideways, does your information enable you to say how far away the engine was at that time when he stepped into its path?

A Yes, the file indicates that the engine was about 50 feet away when the yard foreman in this instance was watching another movement taking place in the immediate vicinity and overlooked the fact his own engine was coming up this track, and he stepped backwards.

Q What about the engineer, what was he doing?

A The engineer there, from his position, could not see because they were going around a left-hand curve.

BY MR. SINCLAIR:

Q Any further comment on Exhibit 39, Mr. Shepp?

A I should like to read the second accident as recorded in item 2. It reads:

"At 5.50 a.m. on September 19 while road freight train, with steam locomotive 2860, was proceeding at speed of about 30 miles per hour at mileage 125.0 Cascade subdivision, C.N.R. employee was standing foul of track watching his own train on C.N.R. lead and was struck by right front corner of locomotive 2860. Engineer saw man on track from distance of 20 car lengths

"and sounded series of short blasts on whistle but was unable to bring train to stop before man was struck. He sustained a bruise on his left shoulder but continued on duty on his own train."

Now, in that instance, in examining the investigation and the files, the C.N.R. employee became confused with the whistle signals that were being given or the whistle soundings that were being given by another train moving eastward on the eastward track, and that was his explanation for not taking proper steps to make the necessary observation on the track on which he was standing.

MR. LEWIS: If my friend is through with the exhibit, I imagine that those two cases were also investigated, and I should like to make the same request with regard to them as with regard to the others.

MR. SINCLAIR: Yes, Mr. Chairman.

BY MR. SINCLAIR:

Q You have also prepared a statement showing for the year 1956, for Vancouver terminals, the trespassers struck by moving locomotives or cars, and I would ask to have that filed as Exhibit 40.

EXHIBIT No. 40 - Statement showing trespassers struck by moving locomotives or cars, Vancouver terminals, 1956.

BY MR. SINCLAIR:

Q You have that before you?

A Yes, I have.

Q Looking at Exhibit 40, Mr. Shepp, does that record all the trespassers struck by moving locomotives or cars in Vancouver terminals, 1956, according to the records of the company?

A Yes, sir, it records them, and there was only one case.

Q Is there any comment you would like to make on it?

A Yes, I should like to read this into the record.

"At 9.00 p.m. on October 5th while passenger train 68, with diesel units 8518, 8538, 4454 and 4052 was proceeding at a speed of about 12 miles per hour at mileage 126.7 Cascade subdivision, a man ran out on to the track and threw himself in front of the leading unit. The train was moving around curve to the left and the fireman saw the man approach the track from his side. At a distance of approximately three car lengths he shouted to the engineer to stop but the train could not be stopped until the leading three units had passed over the man's body."

The investigation revealed, and of course the final conclusion -- I do not believe there was an inquest held because it was concluded that this was a suicide. However, an investigation did reveal that this man, a short time previously,

had attempted suicide and was prevented from doing so by a friend.

Q Now, have you made a check of the records of Vancouver terminals for the year 1956 in regard to crossing accidents?

A I did, sir.

Q I have a statement here headed "Crossing Accidents, Vancouver Terminals, 1956" and I should like to have that marked as Exhibit 41.

EXHIBIT No. 41 -- Statement showing crossing accidents, Vancouver terminals, 1956.

BY MR. SINCLAIR:

Q Looking at Exhibit 41, please Mr. Shepp, tell us if you have any comment on that?

A Yes, my investigation revealed that there were fourteen crossing accidents in Vancouver terminals during 1956. The investigation determined that in none of the fourteen cases could engine or yard crews have done anything to avoid the accident.

THE CHAIRMAN: I just noticed that in Exhibit 40 and in the second paragraph of Exhibit 39, while the two exhibits are headed "Vancouver Terminals", in each case the movement was some 125 or 126 miles away from something.

THE WITNESS: The Vancouver terminals extend, sir, from Mile 130 and back to the yard limit board, which is located at approximately 125.5.

BY MR. SINCLAIR:

Q On what subdivision?

A Of the Cascade subdivision, so that would mean that the distance Vancouver terminals cover is approximately five miles.

Q The Cascade subdivision mileage is calculated westward from where?

A From North Bend.

Q So the figure 125. something would be 125. something miles from North Bend?

A That is correct.

MR. LEWIS: May we have the investigations of these crossing accidents as well, Mr. Chairman, or are they in the courts?

MR. SINCLAIR: I do not know.

THE CHAIRMAN: I suppose Mr. Lewis is entitled to see anything that is referred to here, and use what he thinks is relevant. I am quite sure any use Mr. Lewis makes of it will not embarrass you from any other point of view.

MR. SINCLAIR: It is the reaction of the training of a lifetime when somebody asks me for my file. I will be glad to let him see it.

THE CHAIRMAN: I do not forget.

BY MR. SINCLAIR:

Q Now, Mr. Shepp, as superintendent at Vancouver, in addition to the terminals, you told the Commission you had supervision over the Cascade and Thompson subdivision. That was correct?

A That is correct.

Q The Cascade subdivision runs from Vancouver to North Bend, British Columbia, and the Thompson from North Bend to Kamloops, British Columbia?

A That is correct.

Q Now, what kind of terrain is involved in these two subdivisions?

A It is mountainous terrain.

Q Does that cover the entire Fraser canyon?

A It does, yes.

Q And it is on what subdivision?

A It is on the Cascade subdivision.

Q Do you know ^{what}/differential is paid on the Thompson and Cascade subdivisions?

A Yes, the valley rates are paid.

Q What kind of track is this, tangent track, straight track or is it curved track?

A The Thompson subdivision is preponderantly curved track.

Q What is the maximum speed of any freight train on the Thompson?

A The maximum speed for freight trains is 35 miles per hour.

Q Is that for symbol trains?

A That is for all freight trains.

Q On the Cascade?

A On the Cascade the maximum speed is 40 miles an hour.

Q For freight trains?

A For freight trains, but not through the canyon

portion of the Cascade subdivision.

Q What is the speed there?

A The speed there on that portion is a maximum of 35 miles an hour.

Q Do you, on this subdivision, have any problems with boulders coming down or anything in that nature?

A Yes, we do on the Thompson subdivision. There are quite a number of locations where boulders roll down on the track.

THE CHAIRMAN: Is that something like a rock slide?

THE WITNESS: Not exactly; the boulders roll down on the track at some particular times. There are a considerable number that roll down and it could be regarded as a minor rock slide.

BY MR. SINCLAIR:

Q Do you have any kind of slides in this territory?

A Yes, we do.

Q What procedure do you follow on the Canadian Pacific to deal with those matters?

A We employ regularly a number of track patrol men in this ^{territory} ~~period~~ to patrol the track around the clock. In most cases, the patrol men are the first to discover the slides or large boulders coming down, although in many instances the train crews are vigilant, of course, and they at times observe them on the track. Sometimes they are able to prevent striking them and other times they strike the rocks before they can stop.

THE CHAIRMAN: You are speaking of the track from Vancouver east to Kamloops?

THE WITNESS: I am speaking at the moment of the Thompson subdivision which runs from North Bend to Kamloops, and that is where we have most of the boulders, in that area.

THE CHAIRMAN: You are speaking, then, only of the Thompson subdivision?

THE WITNESS: Only of the Thompson subdivision.

BY MR. SINCLAIR:

Q Do you have any trouble on the Cascade?

A Yes, on the Cascade we have mostly snowslides and washouts occasionally.

Q Now, Mr. Shepp, do freight trains that operate over the Thompson and Cascade subdivisions, do they do switching en route?

A The symbol trains or scheduled fast freights do not do switching en route. However, there are some through freights that do switching at odd junction points such as Spence's Bridge on the Thompson subdivision, and of course the way freights on that subdivision do most of the switching at the way stations.

THE CHAIRMAN: Just a minute; you referred to symbol trains and you said they do not do switching, with certain exceptions. Then you went on to speak of through freights. Do the words "symbol trains" include through freights or is that a separate kind of freight?

THE WITNESS: What is meant by symbol trains is a fast freight and it operates on a freight schedule.

THE CHAIRMAN: And that may be a through freight?

THE WITNESS: It is a through freight in a sense, while through freights that do switching that I referred to are freight trains that do not run under a symbol train schedule. They run as extra freights.

BY MR. SINCLAIR:

Q When these trains do switching en route who makes up the crew and how is the switching done?

A The switching, as I have stated before, the proper and safe way to do it is by an exchange of signals on the engineer's side.

Q Who does this now?

A The train crew, the two brakemen and, depending on the nature of the switch, the conductor is also with the crew, but where there are only one or two cars to pick up or switch off, in many instances the trainmen do the work themselves while the conductor is clearing train orders in the office.

Q Now, you say that the proper and safe practice on this kind of switching is to relay signals to the engine?

A That is correct.

MR. LEWIS: To the engineer?

MR. SINCLAIR: To the engineman, I am sorry. The reason for that is that under the uniform

code engineman is defined, and I use it in that sense, whereas many people use engineer. It is the same thing. Engineman is the definition from the uniform code.

THE CHAIRMAN: And trainman and brakeman are the same men.

MR. LEWIS: I was not objecting to the use of the term engineman. I did not heard the word "man". I just heard the word "engine".

THE CHAIRMAN: I did not either.

MR. SINCLAIR: I just wanted to make it clear that enginemen does not include firemen.

THE CHAIRMAN: I think this room is peculiar in that the talk-back is different coming this way or that way.

MR. SINCLAIR: It is a very difficult room in which to hear.

BY MR. SINCLAIR:

Q You have explained the proper and safe precautions, as you have stated. Now, is it ever departed from to your knowledge in regard to switching on the road?

A Yes, I had one instance not long ago that I dealt with where switching was undertaken from an exchange of signals with the fireman and, in this instance, the stop signal that the fireman relayed to the engineer was not heard by the engineer in sufficient time to bring the movement to a stop before it contacted the end of a platform of a building.

Q Now, that is one instance; do you know whether it is going on all the time or what have your observations --

HON. MR. McLAURIN: You are now talking about road switching?

THE WITNESS: I am talking about road switching and that is one instance.

BY MR. SINCLAIR:

Q That is one instance you have had where there was a small mishap. What is your observation on the Cascade and Thompson subdivisions?

A To the best of my observations, switching on both of these subdivisions is being carried out through an exchange of signals on the engineer's side. I have not noticed any other locations, where switching is not performed by an exchange of signals on the engineer's side, although there may be because I did not cover each instance completely, although I have made many trips up and down both subdivisions and observed much switching taking place.

BY THE CHAIRMAN:

Q You drew a distinction a little earlier between a rule and a safe practice. Now, do you mean by a safe practice a practice in which the men are educated and, whether it is the engineer or fireman or trainman is that what you mean?

A Yes, I mean that, the practice to which they are educated.

Q And does it also mean that a breach or failure to carry out that practice involves discipline?

A That is correct, when the breach results in some damage; otherwise, it would never come to our attention.

Q That is the only time sanctions can be applied, as that is the only time you know about it?

A That is correct.

Q But it is a breach which is visited by discipline if the proper man in the organization learns about it?

A That is correct, sir.

MR. SINCLAIR: That is all I have for this witness, sir, and according to the arrangement with my friend, I would ask him to stand down and now call the next witness.

MR. LEWIS: I have just been very curious this morning about my friend's files. I should like to see the investigation, if I may, of those instances we have been speaking about a minute or two ago where the switching had been on the fireman's side and the engineman could not hear the fireman's stop signal. The witness said he dealt with it, so presumably there was an investigation.

BY MR. SINCLAIR:

Q Where was that?

A It was on the Cascade subdivision at a station called Mission City.

Q You have got a file on it?

A I do not know -- I haven't it with me but I can secure the file. I have a file on it, yes.

THE CHAIRMAN: What is the next witness' name?

MR. SINCLAIR: It is Mr. J.P. Koster.

JOHAN PIETER KOSTER, Sworn

BY MR. SINCLAIR:

Q Mr. Koster, where do you reside?

A I reside at Utrecht, in the Netherlands.

Q What is your present position?

A My position is manager of the Department of Rolling Stock and Electrical Installation for the Netherlands Railway Company Limited.

Q What is your schooling; where did you go to school?

A After I was born at Utrecht in the Netherlands, I went with my parents to the Dutch East Indies, where I went to school. After that, I went to the Technical University at Delft in the Netherlands and then started my career.

Q What did you graduate as from Delft?

A I graduated as an electrical engineer.

Q You, I understand, are a member of the Royal Institute of Engineers at the Hague?

A I am a member of the Royal Institute of Engineers for the Netherlands and I am also an associate member of the Institute of Electrical Engineers in London.

Q After you left university what did you first do?

A My first occupation was in the electricity supply industry.

Q When did you join the Netherlands Railway?

A I joined the Netherlands Railway in 1942.

Q As what?

A I started to work on the Netherlands Railway as a trainee in the operations department.

Q What was the first work you did?

A The first work was a very intensive training in my later duties, starting with two months as a fireman on steam locomotives.

Q When you were training as a fireman were you assigned to a locomotive as part of its crew?

A I was assigned to a locomotive as part of its crew.

Q You were not there as a learner, just going along with the regular fireman?

A No, I was the fireman myself.

Q And you had two months of that and then what did you do?

A Then, I was about six months assistant to what you would call the master mechanic.

Q Then, your next position?

A After that, I was assistant to the superintendent of motive power.

Q Is that in the operating department of the Netherlands Railway?

A That is in the operating department.

Q And what jurisdiction did you have at that time?

A You mean what my duties were?

Q Yes?

A My duties were, as assistant to the master

mechanic, to assign crews to locomotives, to make sure that they performed their duties as they should and make sure that the inspectors did their duties as they should, to supervise the maintenance of the steam locomotives in the locomotive shops.

Q You said you did that as assistant to the master mechanic; and I think you meant as assistant to the superintendent?

A That is right.

Q Then, after that training, what did you do then?

A After that, I was assigned to the electrical section of the then department of rolling stock and work shops.

Q And then?

A On the 1st of January, 1950, I was appointed chief engineer of the locomotive section of the same department.

Q And after that?

A After that, in November, 1952, I was temporarily appointed as manager of the department to be appointed definitely on the 1st of June, 1953, in this position, which I have held ever since.

Q And that is the present position you hold?

A That is correct.

Q I understand, Mr. Koster, that since 1952 you have been lecturing on the staff of Delft University on electric and electric-diesel traction?

A On electric and diesel-electric traction, that is correct.

Q Are you a member of the national committee for

standardization of various European committees of that type?

A I am a member of a number of national committees for standardization. I am delegate for the Netherlands Railway in the technical committee of what is known as ^{Union} international ^{comite}, Chemin de Fer, in Paris. I am a member of the Netherlands delegation of the international electrical committee and I am also a ^{affiliate} member of the mechanical and electrical section of the association of American railroads.

Q Have you written on any technical subjects?

A I am the author of numerous articles in the national and international technical press and I am also the author of a textbook on electric traction.

Q In connection with your work, have you travelled on locomotives on other than your own railway?

A In connection with my work I have travelled on locomotives on almost all the countries of western Europe as well as on some in the former Dutch East Indies and also in the United States.

Q Have you ever ridden in the cab of a locomotive on the Canadian Pacific?

A Of course, and in Canada on the Canadian Pacific Railway.

Q Does the Netherlands Railway Company Limited perform all the rail transportation in the Netherlands or are there other companies?

A The Netherlands Railway Company performs all

the railway transportation in the Netherlands except for some very few cases where international trains have a driver of the country they come from, but in that case the drivers are piloted by a man of our own personnel.

Q How many miles of roads have the Netherlands Railways?

A We have, in round figures, about 2,000 miles of road.

Q When you say "miles of road", that does not mean miles of track, it means first main track only?

A It means miles of road, both double and single track.

Q But only counted as one mile if you have double track?

A That is correct.

Q How much of your railway is single track and multiple track?

A Approximately 50 per cent is double track and the balance is single track.

Q Is any part of your railway electrified?

A At present about 44 per cent of our system is electrified, and in this section we perform about 70 per cent of our traffic. The balance being not electrified we use diesel-electric, and up until now a little steam traction.

Q You still have some steam traction left?

A We have still have in service about 60 steam locomotives which will have disappeared by the end of this year.

- Q Your present proportion by electrification, has that been a growing thing?
- A We have extensions being carried out at present, and if the present program is finished we will have about 54 per cent of our system electrified and on the balance we will have diesel-electric traction exclusively.
- Q Your diesels, are they all diesel-electrics or have you diesel-hydraulics or diesel-mechanical as well?
- A After having gone through experience with different kinds of ^{transmission,} we have decided upon electric transmission exclusively.
- Q You have decided on electric transmission exclusively, you say?
- A That is correct.
- Q So your diesels now, and as you have planned them, will be diesel-electric?
- A That is correct.
- Q Now, does the Netherlands Railway interchange traffic and cars with other European railways?
- A We have a very extensive interchange of rolling stock with foreign railway companies.
- Q Now, about how many freight cars have the Netherlands Railway?
- A We have about 23,000 freight cars, of which 11,000 are open cars, 10,000 box cars, and the balance being miscellaneous cars, flat cars, tank cars, service cars, etc.

Q Approximately what is the capacity of your box cars?

A The capacity of our box cars is approximately 31 tons lading capacity, that is.

Q That is lading, that is contents capacity?

A That is correct.

Q Now, in ~~passenger~~ equipment, what roughly is the inventory of your ^{passenger} equipment?

A The inventory of our ^{passenger} equipment is, in round figures, 2,000 cars, of which 1,250 are self-propelled electric multiple unit cars.

HON. MR. MARTINEAU: How many?

THE WITNESS: About 1,250; 250 are self-propelled diesel-electric multiple unit cars, and the balance of 500 cars the conventional passenger cars.

BY MR. SINCLAIR:

Q Then, motive power, what is the inventory of motive power on the Netherlands Railway?

A The inventory of ^{motive} ~~motor~~ power on our system is, for road service, 110 electric locomotives; about 300 diesel-electric locomotives.

Q Then, you mentioned about 60 steam, and were they road locomotives?

A They are now all road locomotives.

Q And for switching or shunting, I think you call it?

A For shunting service we have 153 small diesel-electric shunting locomotives and we have 140 of a larger type.

- Q Do you ^{use} steam engines now for any shunting work?
- A We have no steam engines as shunting engines, but we do occasionally use steam road engines for shunting work.
- Q But you have none assigned all the time for that work that are steam?
- A No.
- Q But sometimes you use your road steam locomotives for shunting work?
- A That is correct.
- Q Now, dealing with the business of the Netherlands Railways, about how many trains a day do you run on your system?
- A The number of trains we run each day is approximately 3,000, of which 2,600 are what we call scheduled trains and about 400 are special trains.
- Q Now, in yard operations, take the main yard, where is the biggest yard on your system?
- A The biggest yard on our system, so far as the number of cars handled goes, is the yard at Rotterdam.
- Q How many cars would you handle through that terminal in a day?
- A We handle at present an average of about 1,200 cars, that is 1,200 counted, 1,200 in and 1,200 out. Contrary to the statement of Mr. Shepp, where I noticed that you count on the C.P.R. ^{as double} -- according to the C.P.R. count this 1,200 would be 2,400.
- Q To make your count similar to the count Mr. Shepp

made it would be 2,400?

A Yes.

Q You count one for movements both in and out and we count one in and one out?

A Yes.

Q Is Rotterdam a flat switch yard or is it a hump yard?

A Rotterdam is mainly a flat switching yard, but we have a small hump.

Q Manual or mechanical?

A This is a manually operated hump.

Q Dealing with your volume of business, can you tell me in passenger miles about the volume of your business in a year?

A I can give you the figures for the year 1955.

Q That is the last you have available?

A That is the last we have available.

Q Can you give it to me by passenger miles?

A The number of passenger miles will have been about 4.7 billion.

MR. MUNDELL: Is that the American billion or the British billion?

THE WITNESS: That is the American billion.

BY MR. SINCLAIR:

Q Regarding revenue ton miles, that is freight train miles revenue?

A Freight train miles revenue is about 2 billion.

Q What do you mean when you give your figure of revenue ton miles, do you include the tare of the car?

A That is the net weight of the loads.

Q At what speed do you operate your passenger movements?

A The regular scheduled speed of our passenger trains is 75 miles an hour.

Q And your freight trains, how fast do you run them?

A The maximum speed of our freight trains is 50 miles an hour.

Q And your yard operations, what speed do you use for your shunting operations?

A In yard operation the speed depends largely on the work being done. It may vary from one to five or six miles, whereas light engines may run at speeds of 20 miles, and that is the maximum.

Q Generally speaking, your railway operates through flat terrain, does it not?

A Our terrain is essentially flat, with the exception of very steep but very short grades when we have to mount the bridges across the great number of waterways in our country.

Q Do you have any of what we call in this country level crossings or road crossings at grade, I think is the technical phrase?

A There is very intensive vehicular traffic on the roads in the Netherlands and we have to deal with all of about 7,000 level crossings.

Q Now, are those crossings protected by lights or gates or flashing lights or are they not?

A Of the 7,000 level crossings we have about 4,000

that are public crossings and 3,000 are private crossings. The greater half of the public crossings are protected by a sign only, a sign in the shape of what we call a St. Andrew's cross.

Q That is the regular railway crossbuck we have in this country?

A That is correct.

Q You have a very much nicer name for it.

A All the others are protected by either conventional European gates or the American type of half gates or flashing signals and bells.

Q May I summarize your evidence this way, that over 50 per cent of your public crossings are protected only by the St. Andrew's cross?

A That is right.

Q And the balance are protected mechanically or with lights?

A That is right.

THE CHAIRMAN: We will take five minutes, Mr. Sinclair.

--- Recess.

-- After recess.

BY MR. SINCLAIR:

Q Mr. Koster, on the Netherland railways in passenger service, how many self-propelled units do you run in multiple?

A The total number of cars on self-propelled electrical trains is 12 as a maximum.

Q And on self-propelled diesel electric?

A On the self-propelled diesel electric, also 12.

MR. LEWIS: I am sorry, I did not understand. Does that mean 12 self-propelled cars coupled together?

MR. SINCLAIR: In multiple, yes.

THE CHAIRMAN: I do not understand that. I do not understand about the number of self-propelled diesels.

MR. SINCLAIR: These are self-propelled diesel electric cars that are coupled together in one train, the consist being a maximum of 12. You will recall Mr. Gossage's evidence that we ran them up to a maximum of four or five.

BY MR. SINCLAIR:

Q These are similar to the Budds?

A They are comparable to the Budd cars.

Q You have seen the Budd cars on the Canadian Pacific, the Dayliners?

A Yes.

Q And are yours similar to that?

A Yes.

Q On locomotive hauled passenger trains, with

Mr. Koster

a locomotive and trailing cars, how many cars make up the consist of the train?

A Trains hauled by locomotives, international trains and national express trains, have 14 cars as a maximum.

Q And on freight trains, how many freight cars do you have on your consist?

A So far as the number of cars on freight trains it is between 40 and 50, the maximum number of cars on freight train is 60.

Q Do you run your diesel power with a locomotive consisting of more than one unit?

A Yes.

Q How many units do you work in multiple?

A Four as a maximum.

Q Four diesel electric units make up the consist of the locomotive as a maximum?

A That is correct.

Q Now, on your railway have you got signals over your railway?

A Our trains are operated by either automatic or manually operated block signals.

Q And your entire railways is covered by that type of signal communication?

A That is correct.

Q Either automatic or manual block?

A Yes.

Q So, when you come down to operations, do you use signal indication alone or do you use time table and train orders?

Mr. Koster

A The operation of our trains is mainly on signal and timetable.

Q Do you ^{use} train orders?

A We do use train orders but exceptionally. If train orders are to be given to the drivers they are given to them at the terminals or, if it is necessary to give them at an intermediate station, it is only after the train has been brought to a standstill.

Q Now, I want to deal with the question of crew assignments on your various types of trains, dealing first with road. What is the crew assignment on the locomotive on road passenger or freight movements, that is passenger or freight trains moving between terminals, how many people are assigned to the engine?

A If I take passenger trains, first, whether diesel electric, whether locomotive-hauled or self-propelled, we have only one man, the driver in the cab.

Q What about freight?

A Freight trains, whether hauled by electric or diesel locomotives, whether single unit or multiple unit, we have one man in the cab only.

Q What about steam?

A On steam locomotives we have firemen assigned to the driver.

Q Yard operations, what is the assignment on the engine in working in the yards?

Mr. Koster

A On the typical shunting engines we have always had, and also for the steam period, one man in the locomotive.

THE CHAIRMAN: Would you repeat that?

I did not follow that.

THE WITNESS: In yard operations, even with steam, we only had one man on the locomotive.

THE CHAIRMAN: Who is the engineer?

THE WITNESS: It is the engineer.

THE CHAIRMAN: Who keeps up the fire?

THE WITNESS: The driver.

BY MR. SINCLAIR:

Q The driver, in addition to driving the locomotive also kept up steam in your yards.

A On the shunting locomotives, yes, but I have to add that the quality of coal on our railways is rather much better than it is here. We used hard coal and it was easy to fire.

Q You used hard coal, but on the railways here -- have you seen the coal they use?

A Yes.

Q It is not the kind you used, is that what you mean?

A That is correct.

Q Well, for instance, on the ordinary shunting assignment of your steam yard engines, they would be working there without firemen and how often would the fire **have to** be replenished by shovelling coal?

A The driver used to tend his fire in the intervals

Mr. Koster

between shunting movements, and this happens about every hour and a half or two hours.

He just looked at it and shovelled on a few shovels of coal, that was all there was to it.

Q Now, I think you said earlier in your evidence that your shunting work was done today only with diesel electric locomotives, is that correct?

A All shunting work on our system is now done by diesel electric shunting locomotives exclusively.

Q With the exception, I think you said, where sometimes you use road steam power?

A That is correct.

Q And at that time do the firemen stay on assignment?

A They stay with the driver.

Q Even though they are working in the yards?

A Yes.

THE CHAIRMAN: He probably said, but I am not sure, in the case of the diesel shunting engine, it is one operator?

BY MR. SINCLAIR:

Q In the diesel electric shunter in your yards, how many, what is the crew assignment on it?

A One man only, the driver.

Q Now, dealing first with your road diesel electric power, what is it made up of; what types have you got?

A We have one type of mainline diesel electric

Mr.Koster

locomotive, and of this type we have two different makes, one type being made in Holland after a design of the Baldwin Locomotive Manufacturing Company in Philadelphia.

Q Just a minute, Mr. Koster, if you do not mind. You gave me a photograph of which I have had copies made. I show you this, is that the one you are speaking of?

A That is correct.

Q This photograph I should like to have marked as Exhibit 42, and which shows Netherlands Railway 1,000 horsepower diesel-electric road locomotives, built in Holland to the design of the Baldwin Locomotive Company.

EXHIBIT No.42: Photograph of Netherlands Railway 1,000 horsepower diesel electric road locomotive, built in Holland to the design of Baldwin Locomotive Company.

BY MR. SINCLAIR:

Q Looking at Exhibit 42, I notice ^{it as} /engine No.2208 is that it?

A That is correct.

Q Is that the photograph you gave me?

A Yes.

Q Now, you said you had another type of road diesel electric unit?

A It is the same type, but it is a different manufacturer.

Q Is that the other one?

Mr.Koster

A That is correct.

Q I should like to put in also at this time as Exhibit 43, a photograph of the Netherlands Railway 1,000 horsepower diesel electric locomotive, built by Alsthom Company in France.

EXHIBIT No.43: Photograph of Netherlands Railway, 1,000 horsepower diesel electric road locomotive built by Alsthom, France.

BY MR. SINCLAIR:

Q Looking at Exhibit 42, is that the locomotive that is built to the design of the Baldwin Locomotive Company, and how long is that locomotive, Mr. Koster?

A This locomotive will be about 36 feet long, over-all length.

Q I have it marked as 46 feet, 14,010 millimeters which I translated into 46 feet.

THE CHAIRMAN: I think the witness said 36 feet.

MR. SINCLAIR: Perhaps my calculation is wrong. I have translated it from millimeters to feet.

THE WITNESS: It is correct. It is 46 feet long and 12½ feet high.

BY MR.SINCLAIR:

Q Now, looking at that, that is Exhibit 42, is this the type of power assigned to your freight runs?

A These diesel electric locomotives are used for freight hauling only.

Q Do they run singly and in multiple consist?

Mr. Koster

- A These are used singly and in multiple consist.
- Q And one man is the crew assignment on that locomotive?
- A Only one man in the cab.
- Q Does this operate cab ahead or engine ahead?
- A This locomotive can be operated in both directions equally well. There is no preference for either direction.
- Q So, on the Netherlands Railways any day you can see these engines, singly or in multiple, pulling freight trains running engine ahead like that picture is or cab ahead?
- A That is correct.
- Q Now, looking at Exhibit 43, I notice that the cab situation on that is that it is placed say four-fifths of the length --?
- A Yes, that is what we call short end and long end.
- Q In operation, does this operate singly or in multiple?
- A Both singly and in multiple.
- Q Does it operate short end ahead or long end ahead?
- A There is no preference for either way.
- Q And operating singly or multiply may be running engine ahead or short end ahead on your railway every day?
- A Yes.
- Q Is this a freight locomotive?
- A Yes, also a freight locomotive.

Mr. Koster

Q You have given me one other picture, Mr. Koster. This is a photograph I should like to have marked as Exhibit 44. It shows Netherlands Railway 400 horsepower diesel electric switch locomotive; is that the type of yard switch diesel electric you have on the Netherlands Railway?

A That is correct.

EXHIBIT NO.44: Photograph of 400 horsepower diesel electric switching locomotive, Netherlands Railway.

BY MR. SINCLAIR:

Q By the way, Mr. Koster, looking at these various exhibits, Exhibit 42, first of all, what weight on drivers have you there?

A The Baldwin type locomotive has 80 tons on drivers.

Q That is 160 metric tons?

A Eighty net tons, 72 metric tons.

Q That is, using our general measure, that is 80 tons, that is 2,000 pounds to the ton?

A Yes.

THE CHAIRMAN: Can you reduce that to pounds?

MR. SINCLAIR: It is 160,000 pounds.

BY MR. SINCLAIR:

Q In Exhibit 43, what is the weight on drivers of that locomotive?

A The weight on drivers here is 66 net tons.

Q That is 132 net tons -- rather 132,000 pounds

Mr. Koster

weight on drivers. Looking at Exhibit 44, what is the weight on drivers there?

A The shunting locomotive weighs about 55 net tons.

Q I notice that this locomotive has side rods?

A That is correct. There are two traction motors and there are three axles.

THE CHAIRMAN: Did you give the weight on drivers of Exhibit 44.

THE WITNESS: 55 net tons, 110,000 pounds.

BY MR. SINCLAIR:

Q On the shunting locomotives, would you please tell the Commissioner where the driver sits?

A The driver sits, as a rule, on the ^{right}~~left~~ hand side of his cab, but if necessary he can also sit on the ^{left}~~right~~ hand side. There is dual control stations and he can operate the locomotive in both directions from either of these control stations.

Q While I have not a photograph, I think the Commission might be interested in the tractive effort of your steam locomotives. How big are your steam locomotives?

A The tractive effort of our steam locomotive, in your terms, was in the order of 35 per cent.

Q Would all your road steam locomotives be hand fired? Did you have a stoker fired locomotive?

A We had only hand fired locomotives.

Q The ones you have still left, are they hand fired?

Mr. Koster

A That is correct.

Q Now, when were diesel locomotives first introduced in the yards on the Netherlands railways?

A The first diesel locomotive on our system, and they were very small shunting locomotives, appeared in the year 1927.

Q When did the type of power that is shown in Exhibit 44 come into service in the yards of the Netherlands railways?

A The 400 horsepower diesel electric shunting locomotive appeared in the year 1945.

Q Now, when this power was introduced into the yards, did you effect any change in your crew assignments, that is looking at Exhibit 44, when this power came in?

A The only change so far as crew was concerned was that the driver was released from tending his fire.

Q On the steam engine he had to fire to keep up steam and he was released from that duty?

A That is correct.

Q By the way, what does your ground crew consist of on the Netherlands Railway in switching operations?

A The ground crew of our yards consists, as a rule, of one man assisted, depending on the kind and amount of work to be done, by two or three men in the field.

THE CHAIRMAN: The one man, I suppose, is

Mr.Koster

the foreman.

BY MR. SINCLAIR:

Q You call him, I think, the shunter?

A The one man is the shunter.

Q And the others?

A The others are assistant shunters, and we also have foreman shunters; the foreman shunter is assigned to three or four crews.

Q That would be like the yardmaster?

A Yes.

THE CHAIRMAN: The shunter man, does he correspond to the yard foreman here, is he in charge of the crew of a shunting engine?

BY MR. SINCLAIR:

Q Is the shunter in charge of shunting movements in your yards?

A The shunter is in charge of all movements of the shunting locomotive and is responsible for the movements.

Q Now, when was the diesel electric power such as shown in Exhibit 42 and 43 introduced into your freight service operations on the Netherlands railways?

A The locomotive made by Alsthom in France --

Q That is Exhibit 43?

A Were first put into service in January, 1955.

THE CHAIRMAN: Mr.Sinclair, would you complete that picture of the function of the assistant shunter?

MR. SINCLAIR: Yes.

THE CHAIRMAN: Get it all in one place.

Mr.Koster

BY MR. SINCLAIR:

Q Yes, what does the assistant shunter do?

You say there is an assistant shunter, and what are his duties?

A His duties are mainly to take care that the cars do not bump with too high a speed into a car standing on the track, and he does that by using what I think you call skates on the rails.

Q He applies brakes to the movement and brings it to a halt.

A Yes.

Q Does he pass signals?

A He does not pass signals.

THE CHAIRMAN:

Q Who passes the signals?

A The shunter.

BY MR. SINCLAIR:

Q In shunting operations, do you let the cars run free?

A Yes.

Q You know what I mean by that?

A Yes.

Q Do you also push and shove cars?

A Yes.

Q You have heard Mr. Shepp's description of how yard operations are done here. Are yours much different from ours, are they any different?

A They are principally the same.

Q Have you made any observations of switching on the Canadian Pacific?

Mr.Koster

A I have.

Q Where?

A At St.Luc yard.

THE CHAIRMAN: The witness might amplify that. There is a man on the engine, we call the engineer. There is a shunter on the ground who apparently is comparable to the foreman who is in charge of the movement. This witness has said that shunter has either two or three assistant shunters. Now, that is all we know apart from this general comparison with Mr. Shepp's evidence, and that one of these shunters applies skates. How is the shunting movement carried out?

BY MR. SINCLAIR:

Q Would you just describe a shunting movement on the 'Netherlands Railway', as to the position of the shunter and the assistant shunter and describe what they do, Mr. Koster?

A If a shunting movement is about to start, the shunter has to go up to the driver of the shunting locomotive and has to tell him what the movements are going to be. If he has done so, he locates himself in a convenient way, that is in such a way that he can overlook the track on which the movement is going to take place and remains within view of the driver. Then, he gives the appropriate signal to the driver.

Q Gives the appropriate signal to the driver of his yard engine?

A That is correct; and according to the signals the

Mr. Koster

driver performs the movements of his locomotive. If this movement, for instance, is a movement, you would call a kick-off of a car, and there are cars located on the tracks on which this car is to be kicked on, then there may be an assistant shunter in the field who applies skates on the rails to prevent this car from bumping too rapidly into the standing cars.

Q Who throws the switches?

A The switches that are thrown are mainly remote controlled.

Q Electrically controlled?

A Electrically or mechanically.

Q So, the shunter does not have to have someone throw switches?

A As a rule not; certainly not in the bigger yards.

Q In some of the smaller yards, they do.

A Yes.

Q I thought I might ask Mr. Koster when the modern road power was introduced. In looking at Exhibit 42 he said that was introduced in, I think, December, 1955.

MR. LEWIS: Exhibit 43 he was talking about.

THE WITNESS: Exhibit 43 was introduced in January, 1955.

BY MR. SINCLAIR:

Q Yes, and Exhibit 42?

A Exhibit 42 was introduced first in January, 1956.

Q And in the transition from steam to diesel in

Mr. Koster

your passenger trains, when did that take place?

A The change from steam to diesel in passenger trains was started in the beginning of the year 1930, between 1930 and 1934.

Q Have you had a big expansion of electric and self-propelled diesel units in passenger service in the postwar period, Mr. Koster?

A In the postwar period, we acquired about 150 self-propelled diesel electric units.

Q I might ask you then, looking first at Exhibit 42, how many of that type of locomotive have you?

A Of this type of locomotive, we have 150, that is we have 150 on order, of which so far about 80 or 82 have been delivered.

Q You have actually in operation about 82 of Exhibit 42?

A That is correct.

Q And Exhibit 43, that is the one built in France?

A Of that type, we have now in service 129.

Q And of these diesel switches, Exhibit 44?

A Of the diesel switches, we have in operation 140.

Q In placing those in service, have they displaced steam locomotives?

A In all cases they have displaced steam power.

Q Did you operate the steam power they displaced with firemen?

A That is correct.

Q What happened to the firemen?

A The fireman was given the opportunity to train

Mr. Koster

as a driver on other modes of traction, whether electric or diesel electric if they wanted. They may also go into other occupations either outside or inside the company.

MR. LEWIS: Am I wrong, or did the witness say that in yards the steam engine did not have firemen at all?

THE WITNESS: Did not have firemen; that is correct.

MR. LEWIS: So your displacement is in road service only?

THE WITNESS: That is correct.

BY MR. SINCLAIR:

Q Was it normal on the Netherlands railways down the years to have steam power for the road work and in the yards? You said earlier in your evidence, I think, Mr. Koster, that today you may have --

A That has always been the practice.

Q And in so far as your diesel units displaced that type of locomotive in yard service it resulted in some displacement of firemen, did it or did it not?

A It did.

Q Now, looking at these locomotives, these diesel electric locomotives, are they equipped with security devices such as low lube and engine overspeed?

A Yes, they have in principle four security devices, engine overspeed, low pressure lubrication and high temperature cooling of the water as well as

Mr.Koster

ground relay.

MR. SINCLAIR: I will be calling evidence to deal with the material, but I just wanted to show the parallel.

BY MR. SINCLAIR:

Q Let me put it this way, how do these security devices compare with the security devices on Canadian Pacific locomotives, do you know?

A The principle is the same.

A Now, we have, as evidence will show ground relays, and engine overspeed, low lube and hot engine; do you know that?

A Yes.

Q And ~~the four~~ you have mentioned on your railway is the same as we have in this picture?

A Yes.

Q And your locomotives on the road, these diesel electrics, say a low lubricating pressure, I think you call it, applied, what would happen? Would you lose power?

A I might say generally if one of these safety or security devices applies and the engineer loses power, he has to take, if possible, his engine into the next station. If the engine comes to a stop, he has to stop his train, reset the device and if he can continue his journey, he does so, if he cannot, he has to advise by telephone the next station and ask for assistance.

THE CHAIRMAN: That is by radio telephone?

THE WITNESS: That is normal telephone; we have a telephone at each of the signals and the signals

Mr. Koster

are approximately one-half mile to three-quarters of a mile apart.

BY MR. SINCLAIR:

Q Now, do freight locomotives have security devices, as you call it, which apply and would the same procedure that you have mentioned for road service be carried out?

A In principle, yes, although the application of security devices to freight locomotives is very exceptional.

Q Now, I am sorry, Mr. Chairman, but in my notes there was one point I wanted to cover in connection with yard operation and I think I overlooked it. I come back to yard operations, with your assistance, Mr. Koster, please. Will you say as to how many cars in your yard operations you take in a cut, do you know what I mean by that?

A Yes. Well, the maximum cut may be 20 to 30 cars, although it is not exceptional at all for the whole train of 60 cars to be taken by the shunting locomotive on the hump.

Q On an average, how many cars would you have in your switching cuts?

A That depends very much on the kind of work to be done.

Q Leaving aside industrial switching on industrial yards?

A It would be between six and 20 cars.

Q In normal yard operations?

A Yes.

Mr.Koster

THE CHAIRMAN: Either pushing or pulling?

BY MR. SINCLAIR:

Q Either pulling or pushing?

A That is correct.

Q Now, you have said that all your diesel locomotives have only one man in the cab --

THE CHAIRMAN: Mr. Sinclair, if you are leaving that shunting, I was going to come back to it and I might as well come to it now. Supposing the yard engine doing the switching, Mr.Koster, has these cars in front of it, pushing.

THE WITNESS: Yes.

BY THE CHAIRMAN:

Q There is the engineer on the locomotive and there is the shunter on the ground and the shunter tells the engineer when to move, does he?

A Yes.

Q Where is the shunter at that time?

A He is, as a rule, on the ground within view of the engineer, of the driver.

Q How does he transmit that signal to the engineer?

A He does transmit the signal both by hand and by the use of a whistle.

Q When the movement starts, what does the shunter do, if anything?

A When the movement starts, he watches the track in the direction of the movement.

Q Is there anybody at the front end of the movement?

A No.

Mr.Koster

Q Let me carry on, what happens?

A Then, the movement continues, the cars being watched by the shunter, and if the movement is coming to a spot where the shunter wants the cars to be put, he gives the engineer the signal to stop and the engineer applies the brakes and the movement comes to a stop.

Q Then, the only assistant that the shunter has, so far as you have mentioned, is the one man, the assistant shunter who places the skates on the track, I suppose under the direction of the shunter.

A That is correct.

Q Well, you said that the shunter may have the assistance of two or three assistants?

A Yes.

Q What, if anything, would the other assistant shunters do?

A If the train has to be split up, for instance, in six or even more different parts, then the shunter takes his cut of cars off one by one or two by two on to those tracks, and if the distance to be covered by those cars is large so that the shunter is always near the engineer and cannot watch proceedings at the other end of the tracks, then he has his assistants on those tracks who apply the skates and who stop the cars in time. But one of these men may, of course, operate two or three of these tracks.



Mr.Koster

Q So, the only function of the assistant shunter, whether it is two or three is to apply the skates?

A That is while the shunting movement is going on, while the shunting operation is going on.

Q What else, if anything?

A After that, he has to couple the cars and connect the air hose.

Q And that is all the assistant shunter does?

A That is correct.

Q Then, you spoke about the switches being set by remote control?

A Yes.

Q That is by a man in a tower?

A Yes.

Q With a push button?

A Yes.

Q Where does the man in the tower get his instructions from?

A He gets his instructions from the shunter before the shunting operation starts.

Q So he is put in a position where he can see the operation?

A That is correct.

Q And he knows where each car is going?

A Yes, he knows beforehand the sequence and the tracks on which the cars are going to be put and he throws the switches accordingly.

HON. MR.McLAURIN: Then, following that up, there is a portion of the shunting work that is done

Mr.Koster

with a crew of two, the engineer and the shunter?

A That is correct.

BY MR. SINCLAIR:

Q Now, Mr.Koster, on your diesel electric road units, have you any safety appliances that you think this Commission would be interested in? They are operating with one man, and have you any safety appliances?

A On our road locomotives we have a safety appliance which we call the deadman device.

Q And on shunting engines?

A We do not have any such device on the shunting engines.

Q In your experience and in your travels in European railways, do you know of any case in which the driver has suffered a seizure of any kind on one of these diesel electrics when he was alone in the cab?

A I do not know of any on our railways.

Q Would you know of them on the Netherlands Railway if they occurred in the last how many years, 15 years?

A In the last 15 years, certainly.

Q And on other European railways would you know if there had been a seizure on locomotives?

A Not necessarily.

Q You might know. How many drivers do you have employed by the Netherlands Railways?

A At present we employ about 3,600 drivers.

Q What is the accident record of the Netherlands



Mr. Koster

Railways?

A I think that I might say the accident record of the Netherlands Railways is rather good.

Q Well, for instance, in operating?

A The last official publication of these accidents said two passengers killed in 1955.

Q And how many employees killed in 1955?

A I could not tell you the exact figure here, but I would estimate two or three.

Q Is safety work active on your railway?

A The management of our railway considers safety one of the most important factors in the operation of our railways. We have a safety committee on which are nominated by the management a number of officers of the railway, and also a number of representatives of the employees.

Q If additional employees were required for safety reasons would the Netherlands Railways assign them to where they were required?

A They certainly would.

Q As to the question of the need of^{an} additional man in the cab of your diesel electrics, has it ever arisen on your railways?

A This question has never arisen.

Q Has it ever been brought up by the drivers' union on your railways?

A No, on the contrary --

Q What was your answer?

A No.



Mr. Koster

A No.

Q Then you were going to say something and I stopped you, I am sorry.

A On the contrary we often had complaints by drivers that they have had to have additional persons in the cab, for different reasons, for instance a driver who has got to get acquainted with a certain line, with the signals and the track. We have a very strict rule which forbids any person not properly authorized, to enter into the cab of a locomotive.

Q Why did the drivers -- you say on the contrary -- why did the drivers object to having people in the cab, do you know?

A Because they are of the opinion and we share that opinion heartily that any additional person in a cab may directly or indirectly distract a driver from his work.

Q Now, is your railway operation subject to any government control for safety?

A It is very much so.

Q How is that done?

A We have to operate our railways according to our railway law, and in order to see that the management operates according to this law there is government employees who permanently check whether the application of railway law is done in the right way.

Q Would this department of government check the safety of operations, for instance, on your railway?



Mr.Koster

A Certainly, they would.

Q Now, Mr.Koster, when you removed the firemen from your steam locomotives and did not assign a second man to your diesel locomotives --

A I am sorry, we never removed the firemen from steam locomotives.

Q I am sorry, when steam power was displaced by your diesel power and your firemen were not transferred to the diesel power, you explained to the Commission that they either kept on their training to be drivers or went to other work or left the railway, and were you able to do that as a managerial act or did you have to get the concurrence of your union?

A I would certainly be able to do that.

Q Did you have to get the concurrence of the union to enable you to conduct operations of the diesel locomotive with one man?

A No.

Q Did the firemen's union that looked after the firemen did they call the employees out on strike?

A We do not have a firemen's union.

Q Are they not union members?

A They are members of the general labour union.

Q And that governs all the employees on your railway?

A That is correct.

Q When these firemen were no longer needed for the motive power introduced, what happened? Was

Mr.Koster

there a strike on your railway?

MR. LEWIS: Mr.Chairman, I really object to that.

THE CHAIRMAN: Perhaps this would be a good place to adjourn.

At 12.30 p.m. the Commission adjourned to resume at 2.00 P.M.

March 8, 1957

AFTERNOON SESSION

---The Commission resumed at 2.00 p.m.

J.P. KOSTER, recalled.

EXAMINED BY MR. SINCLAIR:

- Q. Mr. Koster, what is the average run in miles assignment of your drivers in passenger service? How many miles do they run in their assignments?
- A. On the average you mean?
- Q. Yes, the daily average assignment. How far would they go?
- A. The daily average would be somewhere between 200 and 300 miles.
- Q. And in freight service?
- A. In freight service, between 100 and 120 miles.
- Q. Do your freight trains do switching en route?
- A. They do.
- Q. And if you want to set off from a freight train, say, ten cars at an intermediate station, how would that be arranged?
- A. The normal procedure is that a train is coming to a stop in a yard of a station and then the shunter at the station reports to the engine driver and tells him what he has got to do. Then the shunting movement is carried out in the normal way, as I described this morning.
- Q. Is there a shunter assigned at each of your

intermediate stations?

A. At most of them there are.

Q. And if they come to a station where there is not a regular shunter assigned, who takes his place, the conductor?

A. They bring a shunter on the train from the previous station.

Q. Mr. Koster, have you made any observations of operations in the Canadian Pacific?

A. I have travelled on the Canadian Pacific Railways and I have travelled about 430 miles in the cabs of locomotives.

Q. Were these passenger locomotives or freight locomotives?

A. They were both passenger and freight locomotives.

BY THE CHAIRMAN:

Q. Diesel or steam?

A. Diesel only.

BY MR. SINCLAIR:

Q. What sections of the country did you ride the cabs of the Canadian Pacific? In what sections of Canada?

A. I travelled in the cabs of freight locomotives between the following places:

Revelstoke to Glacier

Stoney Creek to Golden

Field to Lake Louise

Brooks to Suffield

Elkhorn to Brandon

St. Luc Yards to Hull

and on a passenger train from Ottawa to Montreal.

MR. LEWIS: Would you mind reading those freight points again? I just could not write fast enough.

BY MR. SINCLAIR:

Q. Would you do that, please, Mr. Koster?

A. From Revelstoke to Glacier, from Stoney Creek to Golden, from Field to Lake Louise.

Q. They are all in the province of British Columbia?

MR. McLAURIN: Except Lake Louise.

BY MR. SINCLAIR:

Q. Yes, of course. Would you proceed, Mr. Koster?

A. From Brooks to Suffield.

Q. Those are in Alberta?

A. From Elkhorn to Brandon.

Q. That is Manitoba.

A. And from St. Luke, Montreal, to Hull, Quebec.

Q. Have you made any detailed observations?

You said you were in the Montreal Terminal in St. Luke Yard. Did you make detailed observations there? Were you there very long?

A. I spent several hours and I have seen the operation both from the cab of the locomotive, from the ground and also from the retarder tower.

Q. From the cab of the locomotive, from the ground, and from the retarder tower?

A. Yes. I have also been in the signal boxes in the yard.

Q. Now, what types of units did you ride on on

the Canadian Pacific?

A. Several types. I have not actually noted the numbers but I think the largest engine was what you call the trainmaster, 2,400 horsepower, and then the 1,000 horsepower road-switcher in the yard, and in the yard switcher.

Q. Were these units in multiple or single unit consists, the locomotives?

A. Mostly they were in multiple.

Q. When you were coming through British Columbia how many units did you have on the train, do you recollect, in the consist of the locomotive?

A. I think there were three, but I am not sure.

Q. Do you remember what horsepower the road-switcher was that you were on?

A. 1,000 horsepower.

Q. The roadswitcher was 1,000 horsepower?

A. The roadswitcher, I think, was 1,600 horsepower.

Q. Now, based on your observations how would you compare the motive power and operation on the Canadian Pacific as to what you experienced on the Netherlands and other European railways?

A. The operation of the locomotive as such --

MR. LEWIS: Mr. Chairman, I do not think this witness has said anything yet about other European railways.

MR. SINCLAIR: In his qualifications,

sir, he said that in the course of his work he travelled in the cabs of locomotives in most of the railways in Western Europe.

MR. LEWIS: And it is related to that that you ask the question?

BY MR. SINCLAIR:

Q. For the assistance of the Commission and so that my friend may have a better grasp of your experience, would you say what European countries you have travelled in or worked in the cabs of locomotives?

A. I have travelled in the cabs of locomotives in Denmark, Germany, England, Belgium, France, Switzerland and Italy.

BY THE CHAIRMAN:

Q. What kind of locomotives?

A. They were both diesel and electric locomotives.

BY MR. SINCLAIR:

Q. Did you ever ride the locomotives in Austria?

A. Not in the locomotives.

Q. Now, my question: in the light of your experience in the Netherlands Railways and the cabs of locomotives there, and in the light of your experience in the cabs of locomotives in the railways of other European countries, and your observations from the cabs of locomotives in the Canadian Pacific, how would you compare operations and diesel motive power between the various systems?

A. The operating of the diesel locomotives in

Canada is principally the same as in Europe, and certainly so in the Netherlands Railways; the very marked difference, of course, being the fact that in Canada there are three men in the cab whereas we have only one.

Q. You are talking about freight operations?
Do you mean three in the cab on freight operation?

MR. McLAURIN: Road operation.

THE WITNESS: Road operation.

BY MR. SINCLAIR:

Q. Road freight?

A. Yes.

THE CHAIRMAN: Does he mean road freight or road passenger? I am not very clear. Or does he mean both?

BY MR. SINCLAIR:

Q. What do you mean?

A. I mean road freight operation.

Q. Your observation is that there are three in the Canadian Pacific road freight. Is that what you are saying? In the cabs of locomotives in road freight operations in Europe, and particularly on the Netherlands Railway, there is only one man in the cab?

A. Yes.

Q. And in Canada, from your observation, there are three?

A. Yes.

Q. And that was the biggest difference you noted?

A. Yes.

Q. What about speeds?

A. The speeds are comparable. I am talking about freight service.

Q. What about passenger service?

A. The average speed of passenger trains in this country is somewhat lower than ours are. The distances, of course, here are much greater, and the weight of the trains is higher on your railways.

Q. What about the signals that you observed?

A. The signals I observed are, of course, different from ours in their meaning to the drivers; but in principle I have not seen any difference.

Q. Based on your experience on the Netherlands Railways and other European railways, and your observations on the Canadian Pacific, in your opinion do you think a fireman or a helper, so-called, is required on a diesel locomotive?

A. On your locomotives you will, of course, need a driver. I don't think I am entitled to give a well-founded opinion on the presence of a trainman in your locomotives. In the cases I witnessed I appreciated his presence because I noticed that many of your switches in the stations are manually operated, and in most cases there was no local personnel available to do that. As regards the fireman, given the presence of a trainman, I have not

seen any necessity for his presence.

Q. Now, how do you train engine drivers on the Netherlands Railways?

A. The training of engine drivers on our railway depends very much on the background of the man to be trained. If the man has some railway experience or rather driving experience, which is the case when steam drivers or firemen have to be trained for electric or diesel traction, then the training consists of a period of theoretical training and some practice and experience on the new locomotives; the total time for a steam driver being trained for electric traction being sixteen weeks.

Q. What about the fireman?

A. The total time for a steam driver being trained for diesel traction, being eleven weeks. The fireman would have first, theoretical training, and he is then made acquainted with diesel traction in diesel shunting locomotives.

Q. How many months or weeks would it be before you had trained him for a road job?

A. At first he is in the locomotive in the presence of a trained driver. After having given evidence of his ability to handle the locomotive, he is to handle the locomotive himself in the presence of the experienced driver. And after about two weeks he is to operate the locomotive by himself alone.

Q. In the road?

A. In the yard.

Q. And after working in the yard, for how long --

A. After working six months in the yard and after additional theoretical training --

Q. Yes?

A. After additional practice in the presence of a trained driver, he is permitted to drive a road locomotive on his own.

Q. In the transition from steam to diesel electric power on the Netherlands Railways, what has been the effect on the total number of driving personnel on your railway?

A. The total number of driving personnel has decreased considerably.

Q. Have you got any figures, Mr. Koster?

A. I could give you the total figures of our personnel in the years 1945 and 1955.

Q. Would you look at your records and let the Commission have that information, please?

A. The total number of our personnel in 1945 --

Q. Is that your driving personnel?

A. I don't have the total number of driving personnel.

Q. Of all personnel?

A. Of all personnel, I can give you. In 1945 it was 40,234, and on the 31st of December, 1955, it was 34,667.

Q. Have you not available the driving personnel of 1949 to 1955, Mr. Koster?

A. The total number of driving personnel, I can

give you that starting from the year 1949.

Q. Yes?

A. The driving personnel in 1949 was 4,017.

Q. Yes?

A. In the year 1955 the total number of driving personnel was 3,527. That is a decrease of 490.

Q. What happened to your traffic in that six-year period?

A. The traffic increased considerably. The total number of train miles was about 30,000,000 in 1949 and the number of train miles in 1955 was 46,000,000.

BY THE CHAIRMAN:

Q. What is the explanation of the drop in personnel?

A. The explanation in the drop of personnel was that in the first place there was a reduction with regard to the absence of a fireman on electric and diesel traction; and in the second place the mileage per man per shift increased.

BY MR. SINCLAIR:

Q. Mr. Koster, does the Netherlands Railways Limited make a profit?

A. It does make a profit.

BY THE CHAIRMAN:

Q. The increase in mileage per man, what is that due to?

A. Due to the increased speeds, the improvement of timetables, and longer distances covered

per unit of locomotive or self-propelled train.

Q. It had nothing to do with increasing the shift work by the individual employee?

A. Nothing at all.

BY MR. SINCLAIR:

Q. You said your railway makes a profit? How does your railway in that regard compare with the other railways in Western Europe?

A. We think our railway as compared to other European railways is successful in that we have at present the lowest tariffs in Europe, and we are the only railway which actually makes a profit.

Q. How is that? How are you the only one that makes a profit? Would you explain that?

A. In the first place we try to make railway transport as attractive as possible, both for freight and for passengers; and on the other hand we try to reduce ^{operation} ~~tariff~~ costs to the ~~extreme~~ as much as possible.

Q. Thank you, Mr. Koster. Please answer my friend.

BY THE CHAIRMAN:

Q. Mr. Koster, in connection with the subject I was discussing with you this morning, the method in which you carry out switching movement in yard, I will go back to the same illustration and say that there are half a dozen cars in front of the locomotive and you have the engineer in the cab of the locomotive.

You have your shunter on the ground, and possibly two or three assistant shunters. Now, at the front end of that movement as it moves are the assistant shunters up in front and ready to apply the skates, if necessary?

A. Yes.

Q. And if one of them or more than one of them sees that the front end of that movement is in danger of colliding with another piece of railway equipment or some person that has got on the track, have they any function?

A. They have no function. That is the responsibility of the shunter.

Q. And if the view of the shunter is obscured so that he cannot see that, then the collision just takes place, does it?

A. The first rule a shunter has to conform to is that he has to locate himself in such a way that he can see what he is doing, that he can see the track in the direction where the movement is taking place and he stays in view of the engine driver.

Q. He must see both points?

A. He does not necessarily have to see the driver, but the driver has to see him.

Q. I see. Well, then, he has to keep moving with the movement?

A. Yes.

Q. What is your experience of accidents in yard work that is carried out as you have described?

- A. The experience with regard to yard work is very favourable.
- Q. What do you mean by that?
- A. That we have very few serious accidents.
- Q. And what kind of accidents do you have?
- A. The kind of accidents we do have is the derailment of cars, if there has been a collision, and damage to the cars, and it also happens that men are hurt when coupling wagons with each other.
- Q. How do these derailments come about?
- A. If two cars collide the energy involved in the collision has to find a way out --
- Q. I realize that --
- A. -- and this develops very ^{often} ~~fast~~ in the jumping off of the track by the car.
- Q. But who is responsible for these collisions taking place?
- A. The shunter is responsible for ^{all movements} ~~moving all~~ his shunting operation.
- Q. I am still not giving you my idea. I assume he is responsible but what is such a typical derailment? Can you tell me what such a typical derailment would be?
- A. For instance, I could give you an example. If a shunter is about to kick off a car on a track and he gives a signal to the engine driver to proceed, and he does that too quickly so that the man in the tower has not had time to throw the switch --

- Q. I see.
- A. -- that may cause a derailment.
- Q. Is there any other cause of a derailment?
- A. Other causes of derailment are, of course, the collision of cars, as I have explained already.
- Q. Yes, but how would that collision come about, through whose fault?
- A. The fault may be of the shunter giving a signal to the driver so that the speed of the car he kicks off is too great for the track he is kicking it on. There may be a fault because of the assistant shunter not applying the skates in time.
- Q. From what cause does the injury to personnel in your switching operations arise?
- A. The main source of injury to personnel in the yards is caused by the fact we do not have in Europe a central coupler as you have here in America.
- Q. A central what?
- A. A central coupler, a central automatic coupler; but we have what is called a screw coupling and buffers. By the use of a central automatic coupler, as you have here, you simply have to push the two cars together to have them couple, whereas with our screw couplings, a man has to go between the cars to hook the couplings on the other car.
- Q. He has to perform a manual operation?

A. Yes.

MR. LEWIS: Mr. Chairman, I was asking my learned friend, Mr. Sinclair, whether it would inconvenience this witness if he were asked, with your permission, of course, to be back here on Monday. I gather he could be available Monday morning without any inconvenience to him as long as he can get out of here in time to get to New York.

THE CHAIRMAN: I think we understand your position, Mr. Lewis. We will adjourn now until Monday at 10.30 a.m.

-- The Commission adjourned at 2.30 p.m. until 10.30 a.m. Monday, March 11.

ROYAL COMMISSION ON EMPLOYMENT OF FIREMEN
ON DIESEL LOCOMOTIVES IN FREIGHT AND YARD
SERVICE ON THE CANADIAN PACIFIC RAILWAY

6

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I N D E X

WITNESSES:

KOSTER, J.P.

Exam. by Mr. Lewis	629
Exam. by Mr. Sinclair	697
Exam. by Mr. Lewis	703
Exam. by The Chairman	707

BORINTRAGER, Karl A.

Exam. by Mr. Sinclair	712
-----------------------------	-----

EXHIBITS:

No. 45 - International Statistics on accidents	705
No. 46 - Map of New York Central	717

ROYAL COMMISSION ON EMPLOYMENT OF
FIREMEN ON DIESEL LOCOMOTIVES IN
FREIGHT AND YARD SERVICE ON THE
CANADIAN PACIFIC RAILWAY

Proceedings of public
hearing held at Ottawa,
Ontario, Monday, March
11, 1957

PRESENT:

Hon. R.L. Kellock,	Chairman
Hon. C.C. McLaurin,	Member
Hon. Jean Martineau,	Member
Douglas M. Fraser,	Secretary
A.R. Winship	Asst. Secretary

APPEARANCES:

D.W. Mundell, Q.C.	Representing the
C.J.A. Hughes, Q.C.	Commission
I.D. Sinclair,	Representing the
John Pearson,	Canadian Pacific
	Railway Company
David Lewis, Q.C.	Representing the
	Brotherhood of
	Locomotive Firemen
	and Enginemen

Monday,
March 11, 1957.

6TH DAY

MORNING SESSION

--- The Commission opened at 10.30 a.m.

J.P. KOSTER, Recalled

EXAMINED BY MR. LEWIS:

Q Mr. Koster, first I am rather interested in finding out a little more about your early start with the railway. At page 535 you informed Mr. Sinclair that you joined the Netherlands Railways in 1942. When, in 1942, would that be?

A I am sorry, I did not hear that.

-- Mr. Sinclair hands copy of transcript to witness.

MR. LEWIS: I do not think the witness ought to have the transcript.

MR. SINCLAIR: I thought you were recalling something to him. You referred to page 535 of the transcript.

BY MR. LEWIS:

Q You informed Mr. Sinclair that you joined the Netherlands Railways in 1942?

A Yes.

Q When in 1942?

A The first of December.

Q Then you started as fireman for two months, is that right?

A Yes.

Q And then you were assistant to the master mechanic?

A Yes.

Q That would mean that you started there about February, 1943?

A First of February, yes.

Q From there you went on to where?

A As assistant to the superintendent.

Q Assistant to the superintendent; that would be six months later?

A That would be approximately six months later; I do not recall the exact date, about six months later.

Q About September or October, 1943?

A That is correct.

Q How long were you assistant to the superintendent?

A I was there until the fall of 1943. Then I went over for a short time to the electrical section of the rolling stock and ~~repair~~^{work} shops department. Then I came back to the superintendent in the beginning of 1944 and in September 1944 we went on strike, September 17, 1944, we went on strike because of the attack on Arnheim. We came back on May 10, 1945, and then I continued to be with the superintendent until September or October in 1945.

Q I do not quite understand you when you say you went on strike in September, 1944 because of the attack on Arnheim?

A Yes.

Q What exactly do you mean?

A You will remember that at the time we were occupied by the German forces and then the allies started their attack on the Rhine crossings at Arnheim and on the starting date, September 17, we were ordered by our government who resided in London to strike and to stop all activities on our railway

system in order to prevent the Germans making use of it.

Q The Germans occupied the Netherlands in 1940, did they not?

A Yes; it started in 1940, May, 1940.

Q Am I right in saying that the Netherlands Railways has been a state-owned railway?

A The Netherlands Railways are in fact a private company but the shares are in the possession of the state.

Q And have been for a long time?

A Have been so since 1937.

Q What happened when the Nazis occupied the Netherlands in 1940 with respect to the management of the railways?

A Our management was given the choice, whether to stay on and co-operate with the Germans or to go away and then the railways would have been managed by the Germans.

Q Your early promotions took place while the management was under the Nazis in 1942, 1943 and early 1944?

A My promotions took place in 1950, five years after the liberation.

Q Don't you think going from fireman to assistant yard master to assistant to the superintendent were promotions?

A Certainly they were.

THE CHAIRMAN: You are drawing a conclusion that the Dutch railways management elected to hand over

the railways to the Germans; is that right?

MR. LEWIS: I beg your pardon?

THE CHAIRMAN: You apparently are drawing the conclusion from what the witness said that the Dutch management had in fact handed over the management to the Germans. I am not sure that the witness said that.

MR. LEWIS: No, my conclusion is taken from what the witness said, that the management of the Dutch railways chose -- I am using the witness' words -- to co-operate with the Germans rather than to permit the Germans to manage the railways.

THE CHAIRMAN: Very good.

THE WITNESS: I hope you will get me right; when I say co-operate, I mean co-operate in this way: What we were doing was done under the international law of Geneva. I do not know exactly which law it is, but it is the law which applies to occupied countries.

BY MR. LEWIS:

Q I was not trying to push that in any way. Am I right in surmising that the operation of the railways was in fact overseen by the German authorities?

A They were, definitely were.

Q And that the railways were at that time used mainly for the benefit of the German authorities?

A That is not true; they were mainly used for our own economy, our own transportation. We only had to carry some military transport which was managed by the Germans themselves.

Q On your railway operations, with regard to the freight carried, I suggest to you that the railways in the Netherlands do not carry a very large sector of the total freight carried in the Netherlands?

A That is correct.

Q As a matter of fact, Mr. Koster, I did some hunting over the weekend and I found a little booklet in the embassy of your country. I know this is a little informal, but if you will permit me I should like to show you this booklet. It is entitled "Holland Today" and on pages 60 and 61 we find these words:

"Within the national territory itself, one-third of all transportation of goods also goes by water, in this case by means of 12,411 shallow draft ships and barges. The railway system covers an area of just over ~~20~~,000 miles, --"

THE WITNESS: That should be 2,000 miles.

BY MR. LEWIS:

Q It should be 2,000 miles?

A Yes.

MR. LEWIS: (Reads)

"-- of which 800 miles are electrified.

Further electrification is proceeding.

They are used mainly for passenger traffic, with a comparatively insignificant handling of freight."

A I would not call it insignificant because 40 per

cent of our receipts come from freight and 60 per cent from passenger transport.

Q That is on the railways?

A Yes.

Q In a United Nations 1955 publication, which I could not take out of the library, I noticed this which I put to you and ask whether it is right or wrong, that your railways carry hardly one-fifth of the total freight carried in the Netherlands.

A That is true, yes.

Q As a matter of fact, the Netherlands freight railway operations are among the lowest of the European countries, is that not so?

A That I do not know.

THE CHAIRMAN: Do you mean absolutely or relatively? What standard are you using?

BY MR. LEWIS:

Q In the total number of freight ton kilometres -- perhaps we can take it by countries -- it is lower than Austria, is that right?

A That is possible; I do not know.

Q You have never seen this?

A I have those figures but not in my mind.

Q Pardon?

A I have those figures but not in my mind, and I could not give you an answer.

Q I do not blame you. I say I am a little surprised. I understand you acted on several international committees?

A Technical commissions.

Q Does that mean that you are not really concerned with the operations of the Netherlands Railway?

A At present not directly.

Q Your experience has been mainly on the technological side, is that not right?

A That is correct.

Q You say you cannot tell me where the Netherlands stands in the ladder of freight ton kilometres in Europe?

A That I could not tell you. You could look up the statistics of the Union Internationale de Chemin de Fer, which would give you the exact figures.

Q That is what I did also?

A They have a very good system of international statistics.

Q Let me put it to you, since you gave the source which I did not.

A I am sorry, I thought you said the United Nations.

Q I looked up both, if you are assuming cross-examination.

A The source I mean is the statistics published by the Union Internationale de Chemin de Fer in Paris. Those are railway statistics.

THE CHAIRMAN: You mentioned United Nations.

MR. LEWIS: Yes, I did. The witness apparently was taking over the cross-examination and perhaps it does counsel good to have that happen.

THE CHAIRMAN: Perhaps it is only fair.

BY MR. LEWIS:

Q It is suggested to you on the basis of that information from both sources that in Greece, Ireland, Luxembourg, Norway and Portugal, that those are the only countries in Europe doing less rail freight traffic than you, having less rail freight traffic that you do?

A That is possible. We operate in our country about 4,500 miles of navigable waters waterways so that the majority of our freight transport goes on the water.

Q And an equally large proportion of your freight transport also goes by motor lorry, is that not right? When I say "equally large" I mean equal to that carried on the water?

A Oh, no, the water is by far the most.

Q What would be the relative proportions?

A I should say that about 40 or 45 per cent of all freight transport in Holland is on the water.

Q I agree with that, and then there would be about 35 per cent by motor lorry?

A Yes.

Q And about 19 per cent by rail?

A That is correct.

Q During your testimony you told the Commission that the countries in Europe, and I am dealing with European countries, about whose rail operations you had some knowledge, where you said you had travelled on their trains and also in the cabs.

A In the cabs of locomotives. The countries I

mentioned were the countries where I travelled in the cabs of locomotives, but there are more countries where I travelled but not in the cabs of locomotives.

Q I am sure you did not intend it, but the general impression of your evidence as a result of the way my friend put his questions --

MR. SINCLAIR: Mr. Chairman --

THE CHAIRMAN: I think it is all right.

Mr. Lewis is just indicating his general impression.

BY MR. LEWIS:

Q Was that in the countries in Europe where you had travelled in the cabs of their trains --

A Of the locomotives.

Q Yes, there was the same manning of their diesel locomotives as the Netherlands had. You did not intend to give that impression, did you?

A That was not my intention and it certainly is not true. In some countries they have two men in the cabs.

THE CHAIRMAN: Would you clear that up, what you mean by two men?

BY MR. LEWIS:

Q What do you mean by two men?

A In some countries it is the custom to have a trainman or a conductor in the cab on the locomotive.

Q Is that what you call a **guard**, which is a word I have noted in some of the literature?

A Yes.

Q Is that the same as a trainman?

A Yes, that is correct.

Q Are you suggesting that there are no countries where there is an assistant driver in the cab?

A No.

Q Pardon?

A No.

Q Do you mean "no" to my question or that there is no assistant driver?

A There is no assistant driver in the cab.

Q Have you travelled in England?

A Well, I mentioned the countries as being Germany, England, Belgium, etc.

Q You are not saying that there is not an assistant driver in the cab of diesel locomotives in England?

A There certainly is an assistant driver in the cab of locomotives.

Q Why did you say that there was not; England was one of the countries you mentioned?

A You were referring to European countries. I am told that England is not a European country.

THE CHAIRMAN: I suppose he means continental.

BY MR. LEWIS:

Q You do not include England in Europe?

A No.

THE CHAIRMAN: It may come in.

MR. LEWIS: One of the witnesses implied that England was part of Canada.

THE WITNESS: We have in our possession a steam locomotive which is now in our railway museum and it says that that is the ~~ten~~ thousandth locomotive sent from England to Europe. So from that I take the conclusion that the continent is considered to be Europe and England is not included in Europe.

BY MR. LEWIS:

Q Perhaps that was your impression, Mr. Koster, but England is in Europe and England is one of the countries where you have travelled and you now agree that in England they do have an assistant driver in the cab of diesel locomotives?

A Yes.

Q What about France?

A In France they usually have a guard or trainman or conductor.

Q Usually, you say; do they not also have assistant drivers in the cabs of their diesels?

A That I could not tell you.

Q You could not?

A No.

Q How about Switzerland, that is another country you visited?

A In Switzerland about 90 per cent of the trains are run with one man in the cab of the locomotive, and the 10 per cent remaining, at the present time they are altering their rules in order to have only one man in the cab.

Q I should like to go through that with you for a moment. Is there any difference between day and

night trains?

A There is, yes.

Q Is it not so that between midnight and 6 a.m. all trains must have two men in the cabs?

A I do not know whether this applies to all trains; I know it applies to some trains.

Q Is it not also true that at one time they had only one man in all trains and they changed it in the last ten years?

A You mean they added a man?

Q That is what I mean.

A I do not know.

Q Have you not heard or read in your extensive travels about a serious train accident that occurred in Switzerland in the 1940's as a result of which the rule was changed?

A In 1940 we had no intercourse with other countries.

Q But you have had since?

A Yes.

Q You have not heard about that?

A I have not heard about such an accident.

Q You have not heard about the change from one to two men as a result of an accident in Switzerland?

A No.

Q You told us you visited Italy?

A Yes.

Q What about the Italian trains?

A The Italians run their trains, the one that I rode on from Florence to Rome had only a driver

in the cab.

Q Do you know of anymore than that one instance?

A What the general rules are, I do not know.

Q You have not found out whether it is a two-man operation in their railways?

A No.

Q What about Germany?

A In Germany as far as I know they have one man in the cab of electric and diesel locomotives.

Q Have you travelled in the cab of a passenger train in West Germany?

A Oh, yes.

Q Have you travelled in the cab of an express passenger train in West Germany?

A This was not an express train, no.

Q Therefore you do not know whether they have a two-man operation in express passenger trains in Germany?

A I do not know.

Q In view of what we have heard would you be ready to tell me that you would have to qualify the general impression given and to --

MR. SINCLAIR: With all due respect, Mr. Chairman, counsel can draw his own impression if he wants to, but he should not say that is the impression which the witness should draw. He may say, "That is the impression I received." I think that is fair.

MR. LEWIS: I think I am quite right.

THE CHAIRMAN: I think the witness can understand the question and answer it, Mr. Sinclair. What was the question?

J.P.Koster

MR. LEWIS: If I may explain, with your permission because I do not like to be part fair or unfair to the witness --

MR. SINCLAIR: I would think you have demonstrated it.

MR. LEWIS: No, I have not. My friend asked the witness at one point, "From your experience in the Netherlands and in Europe, what is the situation"? I interrupted at that point and said he had not said much about Europe and that is when the witness gave the countries in Europe which he had visited. That is at page 616. Now, after those countries had been given my friend asked this question:

"Q. ... in the light of your experience in the Netherlands Railways and the cabs of locomotives there, and in the light of your experience in the cabs of locomotives in the railways of other European countries and your observations from the cabs of locomotives in the Canadian Pacific, how would you compare operations and diesel motive power between the various systems?

A. The operating of diesel locomotives in Canada is principally the same as in Europe, and certainly so in the Netherlands Railways; the very marked difference, of course, being the fact that in Canada there are three men in the cab whereas we have only one."

That is why I said impression rather than statement. I think the witness was speaking mainly about the Netherlands.

J.P.Koster

THE WITNESS: That is right.

Mr. LEWIS: "We have only one", but European is included in there and that is why I referred to impression.

THE CHAIRMAN: You have taken him over it country by country and he has given you his knowledge of them. If you want to sum it up in a general question, I see no objection. I do not think a general question adds much to it. I point out to you that you have been talking of two men and sometimes denominating the second man as assistant engineer, trainman, guard and so when you leave it at two men it is not very definite. I just point that out. However, I see no objection to your question.

MR. LEWIS: Mr.Chairman, in some cases it is an assistant driver, in other cases it is what they call a guard, which the witness says is the same as a trainman.

BY MR. LEWIS: If I may, Mr.Chairman, in that connection, Mr. Koster, does the guard --

A I would rather say it is the same as a conductor.

Q The same as a conductor?

A Yes.

Q In a case where there is a guard in the cab of an engine has he received any special training to be in the cab of the engine?

A I don't know.

Q You have no idea whether he is given any special training to be able to stop the train or to run the train?

J.P.Koster

A I think he will have, yes.

Q And to run the train if anything happens to the engineer?

A I think that the general rule is that if a guard is assigned to the driver in the cab of a locomotive that he must be able to bring the train to a stop or, if possible, to the next station. I think that is the general instructions for them.

Q With that explanation, I suggest to you that the situation in Europe, which includes Great Britain, is mixed up, that it is not all a one-man operation, that there are various --

A The idea I endeavoured to give was that generally it is a one-man operation but I think you can say definitely that I have never seen three men in a cab of a locomotive.

Q Yes, right. Now, Mr. Koster, with regard to the Netherlands, when did you first introduce one man in the cab of an engine in the yards, do you know?

A That has, as far as I know, always been the practice right from the beginning.

Q From the beginning of the railway's operation.

A Yes.

Q That you had, if I remember your evidence correctly, only --

A One man on a shunting locomotive.

Q When it was steam?

A Yes.

Q As well as since when it is mostly diesel?

A Yes. When we changed the shunting locomotives from

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J.P.Koster

steam to diesel the only effect as far as the driver was concerned was that he was relieved from his duties to tend a fire.

THE CHAIRMAN: I could not hear; you dropped your voice.

THE WITNESS: The only effect when changing over from steam to diesel in shunting service was, as far as the driver was concerned, that he was released from his duties to tend the fire.

BY MR. LEWIS:

Q Perhaps I can get some other details.

There is one thing I could not quite understand. Perhaps you can help me. You told us that in the Netherlands you had 2 billion freight ton miles in 1955, was it?

A Yes.

Q We were informed by one of the witnesses earlier that on the Canadian Pacific in 1955 -- Exhibit 20, Mr.Chairman -- there were almost 66 billion freight ton miles?

A I am not surprised.

Q Then, you informed us that you have about 3,600 drivers?

A Yes.

Q Suppose I suggest to you that the C.P.R. has less than 3,000 engineers or what you call drivers?

A Yes.

Q How would you account for that?

Q In the first place, trains in Canada are very much heavier than they are in the Netherlands,

J.P.Koster

and in the second place the distances travelled are much larger than ours, so that there is the two factors which, multiplied, give of course a much higher figure.

Q Well, if I may say so, Mr. Koster, the first one does, heavier trains. That means longer trains, does it not?

A That means heavier trains, not necessarily longer.

Q Just that each car is heavier?

A Yes.

Q What is the capacity of a C.P.R. car, do you know, as compared with yours?

A I think the capacity of a C.P.R. car is about 60 tons.

Q And yours you gave us as what?

A Ours is 31 tons.

Q And that would mean that the C.P.R. cars are much longer, are they?

A They are longer, higher, bigger.

Q How long would your cars be, for example, your box cars?

A The length of our box cars is in English measure 34 feet, 9 inches.

Q Have you any idea what the length of a C.P.R. car is?

A The C.P.R. box car is 44 feet, 4 inches.

Q Are there not larger box cars than that, longer ones than that?

A On the C.P.R.?

J.P.Koster

Q On the C.P.R.?

A I don't know. This is given to me as being the latest C.P.R. standard box car and the car I mentioned is the standard European box car.

Q Used on your railway?

A Yes.

Q You have smaller ones, too, do you?

A We have also smaller ones, yes.

Q What portion of your cars would be of types smaller than that?

A Here I could give you only the load capacity. Our smallest box car has a loading capacity of 20 tons.

Q What proportion would you have of those smaller box cars -- not precisely?

A I should say about 30 per cent.

Q And then would **you** have another proportion that would be smaller than the 31-ton capacity?

A We have a **number** of cars which are in between the two, yes.

Q And what proportion of your cars would be in between the 20 and the 31?

A I should say about half.

Q So you have one-third at the 20 and one-half between 20 and 31? Am I understanding you correctly?

A Yes.

Q So that a very small proportion of your rolling stock is at the 31 capacity level? Right?

A It is about one-third, yes.

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J.P.Koster

Q Pardon?

A About one-third.

Q Am I wrong or is it that it is not one-third?
If half of your box cars are between 20 and 31
and one-third of your box cars are at the 20 --

A I said one-third is at 20.

Q Yes?

A And of the remaining two-thirds half is in
between so the remainder is one-third --

Q I thought you meant half of the total?

A No, I meant half of the balance.

Q Of the remainder?

A Yes.

Q So you have about one-third at the 20, about
one-third between 20 and 31 and about one-third
at 31?

A Yes, but those are approximate figures.

Q Of course, I appreciate that. I do not expect
you to carry them in your mind. Have you any
idea of the equivalent proportions on the
C.P.R.?

A No.

Q Now, you described the operations of shunting
in your yards?

A Yes.

Q The Rotterdam yard?

A Yes.

Q How many more yards do you have?

A Oh, we have six or seven large yards.

Q Six or seven large yards?

J.P.Koster

A Yes.

Q And do you know what the operations in the other yards would be like?

A In principle the same.

Q Do not misunderstand me. I am not trying to belittle your knowledge. What was the last time you inspected the yard operations of your own railway in the Netherlands?

A That was about a week before I left my country.

Q You inspected them at Rotterdam?

A At Amsterdam this time.

Q In connection with your trip here to give evidence?

A No.

Q What was the cause of your inspection?

A It was with regard to the diesel locomotives which had to run over the top of the hump and we had some difficulties there because we had some damage to the locomotives caused by the fact we were going over the hump and the top of the hump was too sharp so that the locomotive was slightly distorted.

Q How long did you spend in the Amsterdam yard the week before you left?

A How long did I spend there?

Q Yes, on the inspection if it?

A I think about three hours.

Q When would have been the last time before that that you visited one of your yards to see the operations in it?

J.P.Koster

A Well, I am not keeping a diary of my visits to yards but I should say, to give you an impression, that I visit a yard about once a month.

Q And you visit mainly for the technical, electrical side of your business? Right?

A Yes, with regard to the behavior and the way of operation of the rolling stock.

Q Would I be right in suggesting you are not one of your railway's experts on the operational part of yard work? Is that right?

A I am certainly not.

Q Now then, you described the operations of the Rotterdam yard?

A Yes.

Q You said that there is one man on the train and that is the driver in the cab of the locomotive?

A That is correct.

Q Whether steam or diesel?

A Yes.

Q Just to be sure that I do not misrepresent anything, with the exception of a road steam engine that you work a little bit in the yard?

A When a road steam engine is used for shunting work the fireman remains with the engine.

Q You retain the same crew?

A Yes.

Q Now, with that exception, which I suppose is uncommon, it does not occur every day --

A It is very uncommon because we have now, as I

J.P.Koster

said, about 60 steam locomotives left and their number is decreasing very rapidly.

Q So that we can disregard it for the purpose of understanding your yard operations?

A Yes.

Q You told us that there was a driver in the cab of the locomotive and that then you had a foreman who might be over two or three crews or three or four crews?

A A foreman shunter is over two or three crews. That is correct.

Q How many foreman shunters would you have in the Rotterdam yard?

A That I could not say.

Q Well, in the order of 20, 30, 50?

A Well, there are about 20 locomotives operating at a time and each locomotive having a crew and there will be working at a time five or six foremen.

Q What exactly are their duties?

A The duties of the foreman?

Q Yes, of ^{the} shunter foreman?

A Their duties are mainly the liaison between the shunters and the yardmaster.

Q What does this liaison consist of?

A It consists of trains, incoming trains and the outgoing trains and the timetables. They have to plan the timing of the shunting. They have to tell the shunters: You have to do this train first before that one, and things like that.

J.P.Koster

Q They go around from operation to operation?

A Yes.

Q And instruct the shunters as to where cars should go?

A Where cars should go and when the train they are preparing should be ready for departure.

Q And how fast they have to disassemble trains and all that kind of thing?

A Yes.

Q Do they have any general supervisory duties to see that the work is done properly?

A Certainly.

Q Then you have a shunter?

A Yes.

Q And you have informed us that he is responsible for the movement of the engine?

A Yes.

Q And for signalling to the engineer?

A That is correct.

Q Or driver, as you call him?

A Yes.

Q What I could not understand from your evidence, Mr. Koster, is this. Suppose you had to set some cars off?

A Yes.

Q They have to be uncoupled, do they not?

A Yes.

Q And who does that?

A As a rule this uncoupling is done by the shunter

J.P.Koster

himself. If the shunter works with an assistant it is done by the assistant. The shunter may instruct his assistant to uncouple cuts from the train as he is performing the operation of the taking off of cuts.

Q If I remember your evidence correctly, Mr. Koster, you did not anywhere suggest that there would be one assistant. You said that a shunter would have two or three assistants?

A Well, the number might vary from nil to three.

Q From nil to three?

A Yes.

Q There are occasions when the shunter works all by himself?

A That is the majority of the cases.

Q He has no assistant at all?

A Yes.

Q When he works all by himself what kind of operation is he then concerned with?

A He has, as I said, to give the necessary signals to the driver and he has to make couplings and uncouplings, if necessary, and occasionally he has to throw a switch if they are not remote control.

Q And that is all done by the shunter by himself?

A Yes.

Q And then he may also have assistants?

A Yes.

Q From one to three?

A Yes.

J.P.Koster

Q And what would govern that as to the number of assistants?

A That would cover the length of the trains to be shunted, the length of the tracks they are going to be shunted on, the area in general, the terrain. If the area is very large then he cannot run from the top of the train back to the rear and forward again. In those cases they have assistants.

Q Yes, and if you will describe an actual operation when the shunter is alone, would he be alone on any train that had more than five or six cars?

A Oh yes.

Q Ten, 15?

A Oh, even more, 40 cars.

Q Forty cars. He would work all by himself on such a train?

A Yes.

Q Without any assistant shunter?

A That is right.

Q That is what you are saying?

A Yes.

Q Suppose you have to divide these 40 cars -- the train has just come in -- on to eight or ten tracks; is that possible at Rotterdam?

A Eight or ten tracks is rather large but it could be possible.

Q How many tracks would you think in the Rotterdam yards?

A Well, a train of 40 cars will not have to be

J.P.Koster

distributed on over four or five tracks, I should say.

Q Four or five tracks?

A Yes.

Q Exactly how does he perform that operation?

A If he does it alone?

Q Yes, you have told me that he does do it alone?

A On occasion, yes.

Q Well, on rare occasions or usually?

A Usually, yes.

Q Well, he usually does it alone. How does he do it?

A He gets his instructions from the yardmaster giving the consist of his train, giving the destination of the cars and giving the tracks on which those cars have to be put.

Q Yes?

A So he starts to give instructions to the engineer telling him, I am going to split up your train in so many cuts, the first cut going on track so and so, the second cut going on track so and so and the third ~~track, et cetera, the third cut~~ ~~cut~~ going on track so and so, *et cetera*.

Q Let's stop there for a moment. Your practice is that the shunter gives all that information to the engineer?

A Correct.

Q Is it all, then, verbal?

A Verbal.

Q Does he give him what is called here, the switch list?

A It is all verbal.

Q He tells me exactly how many cars will go in each track?

A Yes.

Q When he has done that what does he do?

A Pulls up the train, uncouples the first cut, gives the signal to start and starts kicking off his cuts.

Q What?

A Starts kicking off his cuts.

Q The driver does that?

A The shunter does all the operation.

Q And he uncouples his cut of cars?

A Yes.

Q And there is no one to assist him in case the cars run away or anything like that?

A How do you mean -- the cars run away?

Q If there is no assistant shunter there is no one to put the skids on the car?

A Correct.

Q To avoid a heavy coupling?

A Yes.



Q Does he do that himself?

A Not a heavy coupling, because by bumping together the cars cannot couple under our system.

Q Yes, you informed us that. You just get a bump. You don't have any coupling?

A Yes.

Q He has to put the skids under the cars himself?

A In that case he does not put on any skids. He will have his yard empty and he can put his cars on the tracks without skidding.

Q I don't follow. Do you mean that he works by himself only when the tracks are empty?

A Empty, or if there is sufficient room for him to kick his cars on those tracks.

Q When there is no danger of a bump?

A Yes.

Q And if there is any danger of there being a bump he will invariably have an assistant?

A In that case he would go to the foreman and say: "I want an assistant because I have so many cars already on this track."

Q So the difference between having an assistant and not having one would depend on the state of the track?

A It would depend entirely upon the situation as it presents itself.

Q On all the factors?

A Yes.

Q Well, then, he uncouples and he has got the first cut of cars on a track --

A Yes.

Q He signals the engineer again?

A He signals again, uncouples and kicks off the second cut.

Q I don't quite understand, Mr. Koster. During the time when the engineer has to move the train in order that the cars should be kicked off, where is the shunter?

A Normally, on the ground.

Q Where on the ground? He has just uncoupled the car at the cut?

A Yes.

Q What happens at that point?

A When he has uncoupled his cars he has got to walk on the ground until he is well in view of the driver. He also has a view of the track on which he is going to kick his cars.

THE CHAIRMAN: Mr. Lewis, do you understand that the uncoupling of the cut is done before the shunter gives the engineer the signal to move?

MR. LEWIS: Yes, I appreciate that.

THE CHAIRMAN: So that when the engineer gets a signal to stop or reverse the uncoupled car goes on by itself?

MR. LEWIS: I appreciate that.

BY MR. LEWIS:

Q But the shunter is himself some distance up, in view of the driver, to show the driver where these cars would go?

A Correct.

Q Have you no curved tracks in your Rotterdam yard?

A There are certainly curves.

Q Any sharp curves?

A Certainly there are curves, but we try to avoid building a yard on a curve.

Q Would you mind, at this point, describing your Rotterdam yard with regard to straight track and curved?

A The tracks where the trains are prepared are straight tracks as a rule.

Q And which are the curved tracks?

A At the entrance and exit of the yard.

Q Those are the only curves in your Rotterdam yard? Is that right?

A From my recollection, yes.

Q And the tracks in the yard, you tell us, are all straight tracks?

A That is right. You have also to know that there is not only one yard in Rotterdam; we have three, but I am referring to the biggest. The other tracks are, as a rule, straight tracks.

THE CHAIRMAN: Would the reporter read that answer, please?

THE REPORTER (Reads): "We have three, but I am referring to the biggest. The other tracks are as a rule straight tracks."

BY MR. LEWIS:

Q That is true of the other two yards as well, Mr. Koster?

A I think so, yes.

Q With regard to your road crew they have on the road, you did inform the Commission that there is only a single driver in the cab?

A Yes.

Q I could not find, over the weekend, any mention of where there is any other crew on the train.

A There is other crew on the train, yes; on a normal freight train there is one man in the cab and one man in the rear end of the train in what you would call a caboose.

Q Your normal manpower on a freight train would consist, therefore, of two?

A Yes.

Q The driver in the cab, and one man in the caboose?

A Yes.

Q And he would be what we have been referring to as the guard?

A We call him a conductor.

Q In the Netherlands you call him a conductor. That would be the case in the majority of freight trains?

A Yes.

Q Would there be a similar number when you have more cars?

A There would be a smaller number where we have less cars. If the train consists of less than 15 cars we would have one man only.

Q Just the driver in your freight? You never have

someone with him? The driver and conductor?

A Yes.

Q In some cases you just have the driver?

A Correct.

Q Then, I think, you told us that if any shunting has to be done there is either a shunter in the station or they carry a shunter with them from one station to the next?

A That is correct.

Q Now I think you informed us you have a telephone along your rails, as it were, or your railroad --

A Tracks.

Q -- every half to three-quarters of a mile?

A I said we have a telephone at every main signal.

Q Which you then told us are between one-half and three-quarters of a mile apart?

A Maybe longer.

Q I am merely quoting your evidence, I hope, correctly, Mr. Koster.

A We have a telephone at each of the signals and they are approximately half a mile to three-quarters of a mile apart. That applies on our lines where we have the most dense traffic. Where we have less dense traffic we have signals at longer distances.

Q How long are those distances?

A The maximum, I would say, would be about one and a half miles.

Q So, again, all these telephone facilities would be one-half, three-quarters and, in some cases,

at the most, one and a half miles?

A Yes.

Q Did you see any such telephone installations in your travels on the C.P.R.?

A Yes.

Q At signal points?

A Yes, I think I did.

Q How far apart would you say these installations were on the C.P.R.?

A I have no idea, but I know they are certainly much further apart than ours are.

Q Then you said that your diesels had dual control in each case?

A Yes.

Q Both yard engines and road engines?

A Yes.

Q And the engineer can work them either from the left or the right?

A That is correct.

Q And forward or backward from either position?

A Yes.

Q Was there any dual control on the C.P.R. engines you travelled on?

A No.

Q If I read it correctly, Mr. Koster, you informed the Commission that in 1955 you had two passengers killed?

A Yes.

Q And when you were asked by Mr. Sinclair about the number of employees killed you said you did

not quite remember but you thought it was two or three?

A That is correct.

Q Killed how? In what -- to what particular kind of accident were you limiting your evidence?

A You mean in the year I mentioned?

Q Yes, in 1955; you said two passengers had been killed in that year. When you gave your evidence about two passengers -- I am just trying to be fair to you -- did you limit the kind of accident in which they were involved?

A I gave the total number. I was quoting from our annual report of 1955.

Q Well, Mr. Koster, I am sure you retrench at least as well as I do, or better. I show you, then, the Union Internationale des Chemins de Fer statistics to which you were referring, Statistiques Internationales des Chemins de Fer, 1955, and at page 137 there is a table, Table 4-2, on accidents in the Pays Bas, which is the Netherlands. Is that right?

A Yes.

Q You have there column CA which means "killed".

A Two passengers, yes.

Q And voyageurs, which means "passengers"?

A Right.

Q And there are two killed through train accidents and seven passengers killed from other causes on this railway? Is that right?

A Yes.

Q So that out of a total of nine passengers killed through accidents connected with your railway in 1955 -- is that right?

A Will you repeat that please?

Q You had a total of nine passengers killed in accidents connected with your railway in 1955, and not two?

A I do not understand. It says: "Pour suite d'accidents de train--two. Autres causes -- other reasons -- seven. "Other causes" are certainly not train accidents.

Q Let us look at this. I suggest to you that this statistical information deals only with railways?

A Yes.

Q Therefore the accidents stated in that table are connected with railways only?

A Yes.

Q And I suggest to you that the distinction -- I have not had time to read the introduction -- that the distinction is a distinction between accidents where trains collide and accidents connected with railway operations arising from causes other than train collisions. Would not that be the distinction?

A Well, an accident is, as you say, a collision or a derailment. But what would you call, for instance, the case of a man who tries to board a train which has already started, and who falls between the platform and the door of the train, and is killed by that? Would you call that an accident?

Q If he could come back he certainly would.

MR. SINCLAIR: You would not call it a train accident.

MR. LEWIS: Would you not call it an accident connected with your railway operation?

MR. SINCLAIR: It is certainly an accident connected with railway operation, but I would not call it a train accident.

THE CHAIRMAN: Is not its use in that table explained, Mr. Lewis?

MR. LEWIS: As a matter of fact, Mr. Chairman, I have not had time to read the explanations. Perhaps my friend Mr. Sinclair would agree that there might be some questions I could reserve, and ask them after lunch when I have had an opportunity to look this matter up.

THE CHAIRMAN: That would be certainly the most expeditious way. Perhaps we can recess now.

--- Recess.

--- Recess

J. P. KOSTER, recalled

EXAMINED BY MR. LEWIS:

Q Mr. Koster, does your railway operate in accordance with any rules that are uniform in The Netherlands and in other countries in Europe?

A You mean railway law? We operate our railway according to railway law.

Q Which is an act of The Netherlands parliament?

A That is correct.

Q Are there any safety and similar regulations governing your operations?

A Yes.

Q And they are issued by whom?

A Issued by the Minister of Transport, or approved by him.

Q Have you seen the uniform code by which railways in Canada operate, or the Canadian Pacific operate?

A I had a look at it, yes.

Q Do you have anything like that in your country?

A I don't think so. The rules and regulations on our railways are all the result of articles of the railway law, so the general set-up of our rules and regulations is different from here.

Q For example, suppose one of your trains stopped, suppose the diesel could not go and it had to stop, would you have to have a man out flagging to protect the front or rear end of the train?

A If it is on a system with automatic blocks he would not. With a block system the train is automatically covered from the rear.

Q But does he ever have to do any flagging?

A Yes, there are cases where you have to do some flagging.

Q In a freight train where you have just the one driver, which as I remember correctly is the large majority of them; is that right?

A The normal manning of freight trains is one man in the cab of the locomotive, and one man in the rear.

Q Who does the flagging in that case?

A The flagging is done by the man in the rear.

Q Does the engineer instruct him to do that flagging or does he do it on his own, or what?

A If a train comes to a stop and the driver cannot move it any further, he can summon the man in the rear to come up to him for consultation.

Q How does he summon him?

A By blowing his whistle. In that case he may tell this man in the rear that he cannot proceed and then they have to discuss what measures have to be taken.

Q Have you ever had the experience of a train breaking on the road?

A The coupling breaking?

Q Yes.

A I know that it has happened, but in my experience I have never seen a broken coupling.

Q. From your knowledge that it has happened, is it a very infrequent occurrence?

A Very infrequent.

Q If that should happen, if a train does break, if a train becomes uncoupled at some point, what is your procedure in that case?

A In that case both pieces of the train would come to a stop automatically and the normal procedure is for the driver to summon the trainman or conductor and inspect together the broken coupler and then he would push back the front end of the train and use his auxiliary coupler to couple it up and proceed to the next station.

Q That would be done by the two men?

A Yes.

Q The driver would leave the engine, would he, to do that?

A Yes.

Q Suppose flagging were needed at that point, who would do the flagging to protect the train?

A The conductor.

Q The driver would do the coupling, is that it? He would couple up the train?

A If it is necessary to flag the train, the first thing the conductor has to do is to do this flagging. He cannot do anything before he has done this, and then if the driver requires him to do so, he has to come up to the driver and consult what is going to happen to the coupler. You mean the application of the

auxiliary coupling, well I think as a rule it would be done by the driver.

Q When you say the driver may call up the conductor to consult about it, when he calls him up who would do the flagging?

A The conductor before he goes up to the driver he must cover his train from the rear.

Q My difficulty is that if flagging is continuous, if flagging is necessary -- correct me if I am wrong -- I do not understand precisely what you mean by flagging.

A We have an expression "covering the train" and covering the train means to place a visible signal within braking distance from the rear of the train so that another train which may come from the rear will have sufficient time to note the signal and bring his train to a stop.

Q Your conductor would not stand and flag?

A No.

Q He puts something on the rails, does he?

A He puts something on the rails and he sticks a flag in the ground, or if it is at night he puts a red lantern in between the rails.

Q And he just puts it there and then he is free to go and consult with the driver, is that it?

A Yes.

Q And under your rules that is how it is done?

A Yes.

Q Have you any idea --

A The actual signal for a train coming from the rear, he first puts on the rails a device which explodes if the train runs over it. Y u have something similar here. That warns the driver of the on-coming train to look out for a danger signal, and then about 400 metres further he will see a red signal and the distance from the red signal to the rear of the standing train must be at least the braking distance of his train.

Q What do they use that you say is similar to what we have on the C.P.R.?

A It is a kind of contraption which gives a great bang.

THE CHAIRMAN: A torpedo.

THE WITNESS: If a locomotive runs over it.

BY MR. LEWIS:

Q A kind of torpedo, is it?

A If you call this a torpedo I am content to call it a torpedo.

Q Do you know what the rules by which flagging is controlled on the Canadian Pacific?

A No.

Q You told us what the crew on a yard train consists of, that is a yard engine and a ground crew; you told us what the crew of a freight train consists of; what does the crew of a passenger train consist of?

A The crew of a passenger train is, in the first place, the driver and then we have the conductor and we may have a number of what we call ticket inspectors.

Q What are they?

A The ticket inspectors are men who go through the train and collect tickets and punch holes in them.

Q That is not done by the conductor on your train?

A That is also done by the conductor.

Q So your conductor may also collect tickets?

A Yes.

Q But you may also have in addition to him ticket collectors?

A That is correct.

Q I suppose depending on the size of the passenger train?

A That is true.

Q Your distances are short and I suppose the collection has to be done in somewhat of a rush?

A Quicker.

Q So you have additional ticket collectors?

A Yes.

Q Do those ticket collectors have any knowledge of the operation of the train at all?

A They certainly have.

Q Do you train them for that?

A Yes.

Q You told us something about the training of drivers?

A Yes.

Q Are there not definite educational requirements before driver trainees applications for employment are accepted?

A You mean when we take on a new man?

Q Yes.

A A new man who is taken on to be trained as a driver has to have what we call primary school and he would have finished what we call technical school. The technical school is a school where boys from 12 to 15 years of age approximately are taught a craft, plumber, electrician, mechanic, things like that.

Q He has to have been through this technical school?

A Yes, and he has also to have had certain practice in industry.

Q Does he take up a certain craft?

A No.

Q Or certain work in industry?

A As a rule as an electrician or mechanic.

Q So that before you hire him you require him to have completed technical school and to have had shop training, for how long in outside industry, one year?

A It is about one year. I will give you the exact year if you like.

Q If it takes any time do not bother.

A I will look it up for you.

Q You will for the moment agree that it is one year?

A About one year.

Q About one year as a mechanic or electrician in outside industry?

A Yes.

Q Is that any particular kind of mechanical training?

A No, no particular time.

Q He does not have to have a year's experience either as a fitter or electrician?

A No.

Q It is only then that you hire him, when he has had that schooling and that training in outside industry?

A Yes.

Q Then suppose I had just been hired. Y u do not have any firemen on diesels, any helpers on diesels, is that right?

A Yes.

Q What would then be my training now that I have been hired?

A The training program for new men which are hired to be trained as drivers on diesels or electric trains is not yet in a definite state because we have not reached that stage yet. We have so far always used our firemen to fill any places left by drivers who went on retirement and we have at the present time in training to begin with in our repair shops about 30 men which are to be trained to be drivers on diesel or electric locomotives. The definite program for this training is not yet established.

I can tell you what is to be the principle. The principle will be that they will have to go through a stage in our workshops to become acquainted with our rolling stock and all its parts. Then they will have to have certain theoretical training. They

will then have to pass, well, a kind of examination?

Q On the theoretical part?

A On the theoretical part, to show that they have correctly learned what they have to. Then they go into practice under the supervision of an experienced driver.

Q They go into practice on a yard locomotive, is what I gather from what you have said?

A Yes.

Q How long do they practice in yard locomotives?

A That time has not yet been defined.

Q For those who were formerly firemen?

A Yes.

Q As I understand you, what do you do with them?

A A fireman from a steam locomotive has to go through theoretical training for diesel traction in the first place.

Q How long would that take?

A That will be -- I can give you the figures here. A fireman to be trained for driver on a diesel or electric traction will take 20 weeks.

Q Of theoretical training?

A Eight weeks theoretical and ten weeks practice with an experienced driver.

Q Then he goes into a yard locomotive, is that right?

A That is correct.

Q How long is he in the yard locomotive before you let him out on the road?

A That depends very much on the man himself. If he shows that he is rapidly taking in this new practice then we may put him on a locomotive, say after six months; in other cases it may be later, but as a rule it is not more than a year.

Q Before you put him out on the road?

A Yes.

Q Then he goes on the road, at first with some trained driver to guide him, does he not?

A Yes, that is during this first year of training.

Q During the first year of training?

A Yes.

Q And after that he is let loose, as it were, on his own?

A Correct.

Q Mr. Koster, I have never had the pleasure of visiting The Netherlands. May I ask you one or two general questions about it?

A Yes.

Q I think you informed us that it is pretty flat terrain?

A Yes.

Q There are very few, if any, hills in the Netherlands?

A Yes. The highest mountain the Netherlands is about 100 feet high.

Q Do you have any railway going over that?

A No.

Q So that as far as the railway is concerned there are not even 100 foot mountains?

A Yes. We have one track where we have a grade of about 8 per mile, that is .8 per cent over a length of about 4 to 5 miles.

Q And that would be the highest grade?

A Yes -- well, it is not exactly the highest grade but it is the grade of the most importance. We have much steeper grades when we go up to bridges to cross waterways but those are very short.

Q They would be a few yards?

A Oh no, they will be in cases about a mile or a

mile and a half long.

Q Now then, about your weather, Mr. Koster; I understand it is pretty temperate weather?

A The weather is about the worst I could think of.

Q In what respect?

A Well, rain, hail, wet snow, fog.

Q When do you get fog, what times of the year?

A Very often.

Q I apologize for being so ignorant about the Netherlands but I thought it would be useful to know these things. When do you get fog?

A We can have fog -- well, any time of the year but mostly in the spring and fall.

Q And what would be your lowest temperature in the Netherlands, roughly?

A Generally we have a temperature in the winter of minus six, minus ten degrees centigrade.

Q What would that be in fahrenheit approximately?

A Minus ten degrees centigrade is -- it is above 20 fahrenheit.

Q It is over 20 degrees fahrenheit?

A Yes.

Q Above zero?

A When I say minus so many degrees I mean below the freezing point. Last year we had a very severe winter where we had temperatures of about, as you say, 10 below, but that is very exceptional.

Q And do you have very much snow?

A No.

Q Pardon?

A No.

Q You visited the Rocky Mountains travelling on the C.P.R.?

A Yes.

Q What time of the year? When was it you made that visit?

A Three weeks ago.

Q You saw a great deal of snow, did you not?

A On this trip I saw more snow than in the 42 years of my life previously.

Q And what I am driving at is you say that the biggest difference you saw in the operation of the Canadian Pacific Railway on your trips was the fact that there were three men in the cab instead of one?

A Yes.

Q Did you not see any of the other differences in the operation, weather, terrain and all that?

A Well, the terrain of course is different. The temperature is different. There is much more snow, if that is what you mean.

Q Are those not differences that might affect the operations of a railway?

A I was rather surprised to see that these things did not affect the operation of the train as such very much with regard to ours, compared to ours.

Q What do you mean exactly when you say they did not affect operations very much?

A Well, for instance, take the low temperatures. I

expected rather that on the C.P.R. there would be very extensive measures to protect the engines, the traction motors, the equipment of the locomotive against the effects of the low temperature. As a matter of fact, I found very few.

Q Did you have the experience on your travels through the Rockies of a switch being frozen or having to be cleaned of snow or anything like that?

A No, but I actually saw repeatedly men busy at cleaning switches from ice and snow.

Q You did see them cleaning switches of ice and snow?

A Yes.

Q Something you would not have to do in your realm?

A Normally not.

Q And what about the speed of the trains on the grades in the Rockies? Would they not be slowed down very considerably compared to your railway?

A I said already that the speeds on the C.P.R. are as a rule somewhat lower than ours.

Q I am talking about the Rocky Mountains now.

A They are definitely lower.

Q That was a general statement of yours?

A Yes.

Q But they would slow down a great deal?

A Yes.

Q Did you have on your trips the experience of a train breaking or uncoupling?

A No.

Q You had no such experience. Did you have any experience, when you travelled on the C.P.R. diesels

in the Rockies or anywhere else, of any of the alarms going off?

A Yes, you mean alarms, security devices?

Q Security devices, I think is what you call them?

A Yes.

Q What happened when they went off in your experience that you had?

A In my experience what happened was that the security device was re-set and the movement of the train was continued.

Q Where was the defect that the security devices showed? Was it in the first unit or some other unit?

A It was in the one unit I was on.

Q And you were on --

A On a road switcher between Montreal and Hull.

Q And it was just a one-unit diesel locomotive?

A Yes.

Q And who did the resetting?

A The resetting was done by the fireman.

Q And the train did not stop?

A It stopped.

Q For the resetting to be done?

A The train was at a stop.

Q The train was at a stop and he did it?

A And it was in the act of accelerating.

Q Pardon?

A And was in the process of accelerating .

Q And when the fireman re-set this device was the train in the process of accelerating or at a stop?

A At a stop.

Q In a stopped position?

A Yes.

Q What happens on your railway if one of these security devices shows up a defect?

A If a security device operates then the driver in the first place tries to continue with whatever power is left to him. If his engine comes to a stop then he has to stop the train to re-set the device, and if the reason for the coming into operation of the device is such that he can continue his journey he does so, but if he cannot continue his journey he telephones to the next station and asks for assistance.

Q Now then, subject to these accidents and one or two other things I hope to look at during the lunch hour, I come to the final point I wish to deal with this morning. You made an observation as to your opinion with regard to the need for a helper on a diesel engine on the C.P.R. You said --

A I don't think I used the word "helper".

Q You used the word "fireman". We use them interchangeably. Does your correction mean anything, Mr. Koster?

A I should say a helper to a driver on a diesel locomotive is another man than a fireman on a steam

locomotive. His duties are entirely different and his background is different.

Q Would you tell me, please, what exactly you would consider to be the duties of a helper on a diesel locomotive?

A What actually do you mean by your question?

Q You^{just}/said, Mr. Koster, the duties of a helper on a diesel locomotive -- I am not quoting you -- and his training and so on would be entirely different from a fireman on a steam engine. I am asking you if there were a helper on a diesel locomotive what would be his duties, do you think, from your long experience?

A On our experience we certainly would not need a helper on our locomotives because the locomotives are equipped for one man driving, but I could imagine that on the C.P.R. locomotives there would be a possibility of having a helper on a diesel locomotive.

Q And what would the helper on the diesel locomotive do? That is all I am asking.

A I am referring in this case to the fact that it is a practice in this country to have a steam boiler on a locomotive for the heating of the train, and if you have a steam boiler on your locomotive I think you would require a helper to attend to the boiler.

Q You are referring now to the passenger trains?

A Yes.

Q Did you see steam boilers on any freight locomotives?

A Not in operation, no.

Q But you saw them there?

A Yes.

Q And did it need^{any}/attention?

A No.

Q But that in your view would be the only use of the helper on a diesel on the C.P.R.?

A If the boiler is actually producing steam for the heating of the train, yes.

Q Now then, Mr. Koster, you said to the Commission that you were not qualified, I think, or you said, "I do not think I am entitled to give a well founded opinion on the presence of trainmen on your locomotives"?

A Yes.

Q I am a little curious why you are not entitled to give a well founded opinion on the presence of a trainman if you are entitled to give a well founded opinion on the presence of a helper or a fireman?

A Because I have not sufficient experience on the C.P.R. lines to have a definite opinion whether or not a trainman is required.

Q But you think you have sufficient experience --

MR. SINCLAIR: Let him finish. He was going to finish.

MR. LEWIS: I did not hear him.

MR. SINCLAIR: You had your head down.

THE WITNESS: But I think I have sufficient experience to know whether a fireman is required or not.

BY MR. LEWIS:

Q Tell me why you have experience to have an

opinion on the one thing and not sufficient experience to have an opinion on the other?

A Because what actually are the duties of a trainman on your locomotives I do not know to its full extent. I have said I have witnessed some cases where these trainmen had to throw switches as your switches are mainly not remote control but have to be manually operated. This is not the case in our country where in most of the cases the switches are remote controlled and if they are not the switches are thrown by the shunters.

Q So --

A But with regard to the fireman I have said that I have, given the presence of a trainman, not seen the necessity of his presence in the cab.

Q Why should the presence of a trainman make any difference?

A The presence of a trainman makes this difference that your locomotive or the locomotives of the C.P.R. are not equipped in the same way as ours are. Ours are equipped for the one-man operation which means they have in the first place dual controls, and in the second place if the locomotive is going into a left-hand curve the driver can leave his side and walk over to the other side of the locomotive to look out if he wants to and by doing so taking over the dead man's control on the other side of the locomotive. You will appreciate that when he is in his seat he has to activate what we call a dead man's control. If he

walks over he has to release it and there is a certain time delay. He has time to walk over but there is a button on the other side of the locomotive which he can apply, push and so activate this dead man's device, and this device you do not have on the C.P.R. locomotives as far as I have seen.

Q And therefore you reach the conclusion from that -- correct me if I am wrong -- that a second man on the left-hand side of the engine, is, in the case of the C.P.R. necessary?

A I don't know if I could say necessary. I would certainly say that there are cases where his presence would be appreciated by the driver.

Q Would be appreciated by the driver?

A Yes.

Q But you have not formed an opinion whether a second man -- I am not now talking whether it is a fireman or someone else -- is necessary on these locomotives?

A If the locomotives are equipped in the way I have just described I do not see the necessity of having a second man on the locomotives on freight trains.

Q Mr. Koster, would you be good enough to answer my question? On the engines of the C.P.R. in the cabs of which you drove --

A Yes.

Q -- I am asking you whether you have reached any opinion as to the necessity of a second man in those locomotives?

A I should think so, yes.

Q Now, then, apparently you go on to conclude, do you, Mr. Koster, that if you have got a front end trainman in that cab then you do not need a fireman?

A That is correct.

Q That is your conclusion?

A Yes.

Q Did you investigate to satisfy yourself as to what duties the front end trainman might have or has?

A Yes, generally speaking, yes.

Q And what are they? What do you know them to be?

A From what I have seen myself, I have said already that in some cases he has to throw switches, he has to take train orders if they are given to the locomotive crew on his side, he has to inspect the train both at a standstill and when the train is moving. When the train comes to a curve on his side he looks back along the train to see if there is anything wrong with it.

Q And this flagging operation we have discussed, does he have to do that?

A I have not seen any flagging operation. I have also heard him calling signals to the driver.

Q And on the basis of this information you are able to come to a conclusion that he can do all that is necessary to assist the driver? Is that what you are saying?

A Yes.

Q And that the fireman therefore would not be needed?

A Yes.

Q That is the conclusion you have reached?

A Yes.

Q And that is what you meant when you said "given the presence of the trainman"?

A Yes.

Q Given the presence of the trainman the fireman is not needed?

A That is correct.

Q If, Mr. Koster, it were possible to satisfy you that the front end trainman has duties which keep him busy at crucial moments, would you think that at those moments the fireman would not be needed either?

A What would you call a crucial moment?

Q Well, let us assume for a moment, Mr. Koster, that you are coming around a left-hand curve?

A Yes.

Q And that there is a busy road crossing?

A Yes.

Q And if I suggested to you that at that very moment the front end trainman had to inspect his train?

A Yes.

Q And when he does so he is looking back, is he not, Mr. Koster?

A Yes.

Q Not forward?

A Yes.

Q And in that situation the left-hand side of the cab would be blind to the driver, would it not?

A Yes.

Q And is it your considered opinion that in this situation the second man or third man, if you like, but the

J.P.Koster

second man to the driver of the cab is still unnecessary? Is that your opinion?

A The second man to the driver, yes.

Q Yes, a helper for the driver?

A Yes.

Q Who would do the look-out in that situation?

A In the case you have described I would say that any sensible man in his place would look forward first before looking backward.

Q Do you mean the front end trainman would?

A Yes.

Q Suppose that you had a fairly long train; how many cars were there on the trains that you travelled on?

A I think there were about 60 cars.

Q How long would it take to inspect a train that size? Have you any idea how long the front end trainman would take to inspect a train that size?

A You mean inspect it looking along it, looking backward from the locomotive?

Q Yes?

A It never took him more than two or three seconds.

Q Two or three seconds?

A Yes.

Q And the front end trainman inspected a 60-car train?

A Yes.

Q That is your statement on the record, Mr.Koster?

A Yes.

J.P.Koster

Q And so, of course, in two or three seconds, after looking over these 60 cars, he could then turn back and look forward?

A Yes.

Q That is your observation, Mr. Koster?

A Yes.

Q Now, in the same general connection, Mr.Koster, you informed my friend, Mr.Sinclair, and the Commission that your drivers objected to having people in the cab with them?

A Yes. I might, perhaps, say that "object" would be a strong word in this connection because they cannot "object" because they have to accept these men. But I have known, personally, cases when a man was protesting because another man came into his cab.

Q A trainee, or what?

A Another driver -- a colleague -- who was there to get acquainted with a certain track.

Q You say they objected because it might disturb them in their work?

A Yes.

Q Would you seriously suggest that in the application of your general observations to what we are discussing before this commission?

A How would you mean that?

Q What has the disturbance of the driver in the case you mentioned to do with the helper on diesel engines?

A I would rather put it this way: That a second man in the cab of our locomotives might be a source of distraction for the driver, and it is so because the second man has a tendency to chat with him, offer him a cigarette -- which, by the way, he is not allowed, or the mere presence of another man, even when he says nothing, might induce a driver to look at him and see what he was doing.

Q You are talking, are you not, about a man who has no particular duties in that cab?

A Even if he has, in my opinion. For instance, when he has to get himself acquainted with the track --

Q But he has no particular duties to do with the operation of the engine at that time?

A He never has.

Q No, you only have the one man on duty. Now, of course you are entitled to say this, if you so wish and, if you do, I would like an explanation: Were you intending to suggest that if there was a man whom you, or some of the countries in Europe, call an assistant driver, in the cab, with certain specific duties under the supervision of the driver -- are you applying your suggestion about disturbance to that employee?

A Certainly.

Q You think, then, that an assistant driver who has specific duties, would disturb a driver?

A Certainly.

Q That is based on your experience?

A Yes.

Q In what way?

A In the way that I have had many rides on locomotives in Switzerland where I have noticed that helpers, in performing their duties, talk to the driver, which necessitates the driver looking away from the track in front of him, and I have actually witnessed a case where a man missed a signal and was warned by the application of the vigilance signal on the locomotive.

Q And what about the firemen on your steam engines in road service --

A Yes?

Q Do they disturb your drivers?

A The case is different, because the fireman on the steam locomotive has always been there; there has never been another situation. The **speed** of the steam locomotive is different; the trains pulled by steam locomotives are different, and they are mostly on secondary lines.

Q Does he or does he not disturb the driver in spite of the differences?

A He certainly does.

Q He does disturb the driver of your steam locomotives?

A Yes.

Q And your experience has been that from that point of view a fireman on a locomotive is to that extent undesirable?

A That is correct.

Q You have had many such experiences, have you, of this distraction?

A I have been a fireman myself for two months, and I have very often been told to "keep my trap shut" by the driver.

Q Forgive me, this sounds a little insulting, but was that your personal experience, or is it universal down your way?

A It was a personal experience.

Q You have told us, Mr. Koster, that on your

railway a union that combines all the employees --

A We have several unions.

Q Several unions?

A Yes.

Q On your railway?

A I did not say it very clearly, but I said, actually, "unions" in the plural form.

Q I thought it was in the singular.

A No, plural form.

Q You have one union, but --

A As far as the railways are concerned we have three general unions. They are based on religion and on policy -- a Protestant union, a Roman Catholic union and a so-called neutral union which is, in fact, a Socialist union.

Q And these three union organizations take in employees of various kinds on your railway?

A Yes.

Q Each of them does?

A Yes.

Q Maybe a driver, a clerk --

These three unions are what you would call on this continent "industrial unions" in the sense that they take in various crafts and skills, each one of them.

A The two religious unions apply to railway personnel only, whereas the third union takes also members of other companies who make it their business to deal with transportation.

Q In transport .. Other types of transport. Do you have anything to do with, or do you know anything about the international transport federation?

A I have heard of it, yes.

Q One of the statements you made to the Commission, which I am not in the least questioning, was that you have not had any objection from your union to the one-man operation of your diesel locomotives?

A That is correct.

Q I show you, and I would like to file as an exhibit, Mr. Chairman, I forget what number it will be --

THE SECRETARY: No. 45.

MR. LEWIS: A publication of the international transport workers federation, sometimes known as the I.T.F.

MR. SINCLAIR: I don't know anything about this magazine; I don't know anything about it at all. I suppose my friend might call someone who does know something about it and who would be able to deal with it from his own knowledge. Otherwise, it is like filing a newspaper from Hoedown.

THE CHAIRMAN: If it is like that, it will receive the same weight.

MR. LEWIS: I beg your pardon?

THE CHAIRMAN: If Mr. Sinclair's analogy is a good one, the weight given to it would be the same.

MR. LEWIS: I doubt very much whether the analogy is a good one. Of course, my friend's point has validity, that what I am about to refer to will have to be proved in a more appropriate way. But what I want to draw to his attention, and to the attention of the Commission is a resolution adopted by a congress of the international federation of transport workers, of which the international union are members, stating that they propose that the union demand two-man operation of diesel locomotives instead of one-man operation.

MR. SINCLAIR: I just mention that when I was going to introduce some evidence from a secondary source, my friend objected and said primary sources only should be used, and on that basis I withdrew it. The secondary material was from the employers' association a source well known to my friend, but I withdrew it on his objection that a primary source -- primary evidence was available. But if he thinks this is going to assist him and his clients --

MR. LEWIS: I will get it in some other way, Mr. Chairman. I will just ask this witness one question.

BY MR. LEWIS:

Q Mr. Koster, do you know of any resolution on the manning of a diesel locomotive passed by the federation of transport workers?

THE CHAIRMAN: It has sometimes been said that material of that kind is admissible for a body such as we are because, while it might not be the truth itself from the standpoint that a Commission may accept it, that

it may lead to the discovery of the truth. That is a pretty wide umbrella.

MR. SINCLAIR: I realize that. I just thought we were going to produce evidence only from primary sources in view of my friend's objection to my secondary evidence, and the withdrawal of information that I thought was important.

THE CHAIRMAN: At the moment you are agreed so far as this document is concerned, so we will proceed.

MR. LEWIS: May I point out, with great respect, that the analogy is not analogous, if I may use a ~~tautology~~. I was objecting to figures about wages and so on. This is the text of a resolution by an international body, and the reason I am going to withdraw it is that I understand it can be presented in what would, undoubtedly, be a more appropriate way.

MR. SINCLAIR: That is all I am suggesting.

HON. MR. McLAURIN: We are still on Exhibit 44.

MR. LEWIS: I am through with Mr. Koster, Mr. Chairman, subject to the accident and other material which was only available this morning, and I don't think I will be very long this afternoon.

BY MR. SINCLAIR:

Q Mr. Koster, Mr. Lewis in putting certain questions to you, suggested that the revenue ton miles in the C.P.R. were some 66 billion, and he referred to Exhibit 20. Exhibit 20, of course, shows the revenue freight ton miles for all railways, being, for the year 1955, 65.8 -- not Canadian Pacific.

MR. LEWIS: Is it "all railways"?

MR. SINCLAIR: Yes, Mr. Lewis, it says so. And the Canadian Pacific figure is shown in an exhibit that Mr. Lewis asked to have filed, namely, Exhibit 26, for the year 1955, and it shows that the revenue ton miles in the Canadian Pacific are 25.7. That is Exhibit 26. I would just ask you, also, to note this, and then I wish to put a question to you, Mr. Koster. The figure I just gave was on page 39 of Exhibit 26.

BY MR. SINCLAIR:

Q Also, Mr. Koster, in this exhibit at page 38, does it not show, for the year 1955, the miles of road as being 16.9?

A Yes.

Q You will recollect that the other evidence was, as my friend recalled to you, that you had 2 billion ton miles of freight?

A That is correct.

Q And he also put to you that you had about 2,000 miles of road?

A Correct.

Q A million ton miles per mile of road?

A Correct.

Q And the Canadian Pacific figures would work out to about 1.5 million ton miles of revenue freight per mile of road, if I have got that arithmetic right?

THE CHAIRMAN: That will speak for itself.

BY MR. SINCLAIR:

Q In addition to that, you mentioned your passenger operations. What was your passenger miles on the Netherlands Railways?

A I gave this figure as 4.7 billion passenger miles in 1955.

Q Which are added to the 2 billion freight revenue ton miles to show your total density?

A That is correct.

Q And I suggest to you that if you look at Exhibit 26 on record you will find on page 40 of the Canadian Pacific for the year 1955 we have here passenger traffic revenue passenger miles of 1.3 billion. Now, in the light of those figures, what would be your comment as to the density of operations here, railway passenger and freight, compared with yours?

A The density of freight and passenger traffic on our railway system is without any doubt much higher than on yours.

Q Do you in your diesel operation, intermingle with passenger traffic?

A Diesel, yes.

Q And electric, what do you do?

A On the electrified system it is not possible to

put the freight trains in between the passenger trains because there is no room.

Q No room?

A No room. The freight operation on our electrified system is mainly done during the night hours.

Q At very high peak you say you are running passenger trains one behind the other?

A That is correct.

Q And your diesel units you are running throughout the day?

A Yes.

Q Mr. Lewis asked you certain questions concerning yards and tracks at Rotterdam. As I have it in my note, he asked you whether you made your yard tracks straight, and I think you said "Except at the end", if my note is right. Did you say that? I found it difficult to hear.

A Yes.

Q What did you mean by that? Do you mean that all your tracks are curved at the end, or some of them, or what?

A What I meant is that the incoming tracks on a yard, when you come into a yard, the tracks spread out so you have to go to the uttermost right-hand track; you have to go through a curve to reach it. That is what I meant.

Q What about your yard tracks when they come on to a lead in your yard. Are there curves in that for turn-outs?

A Yes.

Q And, basically, does your trackage in your yards differ from the yards in the Canadian Pacific you have observed?

A The yard in Amsterdam which I have just mentioned has 48 tracks, and those 48 tracks come together in two tracks on the main line.

Q How would they compare, for instance, with the St. Luc track?

A I think it would be comparable.

Q That was Amsterdam. What about Rotterdam?

A Rotterdam, as far as my recollection goes, has 36 tracks.

Q In your receiving yard or the departure yard?

A Both of them.

Q My friend asked you about your observations in the cabs of locomotives in other European countries. I think you said that with regard to some of them there were two men in the cabs -- on freight operation, or in passenger operation?

A In both.

Q Did you know of any that had three men in the cab?

A No.

Q Outside of Holland, do you know of any freight operations conducted with one man in the cab?

A Yes.

Q Where?

A I know it for certain in Switzerland.

Q And in France?

A In France I believe that as a rule there are two men in the cab.

Q What about Germany?

A I cannot tell that.

Q Were you dealing with freight or passenger in those answers, Mr. Koster?

A In most cases they were passenger trains.

Q What about freight trains?

A You mean in what countries have I ridden in the cabs of locomotives on freight trains? Certainly in France and Belgium, in Switzerland, and in England. I do not recollect having ridden on freight trains in any other countries.

Q In continental Europe, leaving aside England -- in continental Europe, on the freight trains in those countries in which you rode in cabs, how many of them had two men?

A In?

Q In the cab of a diesel locomotive?

A In freight trains?

Q You mentioned France and Belgium?

A In France they have two; in Belgium one; and in England they have two.

Q What about Switzerland?

A Switzerland, I said already they had one.

Q Now, on the international trains that come through your country from France or Germany, has there been any comment from your drivers as to the number of men on those international expresses?

A No.

Q How many are on them from those countries?

A On the train which comes from France there are two men in the cab, of which the second has to withdraw when he crosses the frontier because then our pilot takes his place. On the diesel train from Frankfort to Amsterdam there is one man in the cab.

Q In regard to train accidents, have you noted any difference between train accidents with two men in the cab as against one man in the cab, from your observance of the statistics?

A That is difficult to answer because we have only two men in the cab in the case of the steam-operated trains.

-- The Commission adjourned at 12.35 p.m.
until 2.10 p.m.

Monday,

March 11, 1957.

AFTERNOON SESSION

---The Commission resumed at 2.10 p.m.

J. P. KOSTER, recalled.

MR. LEWIS: I have looked at the definition, Mr. Chairman, and also showed it to my friend Mr. Sinclair and the witness before we came into the court room.

EXAMINED BY MR. LEWIS:

Q Do you want to explain to the Commission what is the definition in this book for accidents from causes other than trains, casualties from causes other than train accidents?

MR. SINCLAIR: It is defined in the book. I suggest we should just read it.

MR. LEWIS: Yes, that would be the best way. I can read it either from the French, with apologies to Mr. Justice Martineau, or from the 1954 Year Book, which is in English. We have not the English text.

THE CHAIRMAN: Suit yourself, your pronunciation will not get on the notes.

MR. LEWIS: I think perhaps, since we are dealing with 1955, I had better read it in. This refers to columns 17, 19, 23 and 25, and reads as follows in French:

"Col. 17, 19, 23 et 25 -- Ces colonnes comprennent tous les accidents produits par des causes autres que les accidents de trains; elles comprennent, par conséquent, les accidents produits par d'autres faits d'exploitation, par imprudence, par la faute des victimes ou par des cas fortuits, y compris ceux survenus aux personnes traversant les voies, en marchant sur le territoire du chemin de fer, etc.

Union Internationale des Chemins de Fer
Statestique Internationale des Chemins
de Fer

Annee 1955

"

With various crossings on foot, or other crossings, and other accidents.

BY MR. LEWIS:

Q Since you referred to the accidents in your evidence, I would like, with your assistance, to put on record all the accidents so recorded.

MR. LEWIS: Mr. Chairman, I can undoubtedly procure a copy of this. The copy I have in my hand is from the library of the Dominion Bureau of Statistics, which was lent to me; but if it is thought necessary I am sure I can procure a copy from the headquarters of the international union.

1910

1911

1912

1913

1914

1915

1916

1917

1918

1919

1920

1921

1922

1923

1924

1925

1926

1927

1928

1929

THE CHAIRMAN: Perhaps to avoid any misunderstanding later on, or any difference between anybody and anybody else, you just make room for it, and put it in later. Make this Exhibit 45.

HON. MR. McLAURIN: What is the title?

MR. LEWIS: The title is "Union Internationale des Chemins de Fer." Then we have the following, "Statistique Internationale des Chemins de Fer. Annee 1955."

THE CHAIRMAN: You referred to certain pages.

MR. LEWIS: For the definition I have referred to page 19, my Lord, but the definition I read is on the first column of page 20. And the statistics that we are about to deal with are on pages 136 and 137.

BY MR. LEWIS:

Q I will just read these off from the columns, Mr. Koster, and if there is any comment you wish to make you just stop me. This shows that those killed in 1955 were two passengers through train accidents; seven passengers through other causes; employees or servants of the railway in the Netherlands, two through train accidents and three through other causes. And, then, strangers, fifty-one, and there is a note at the bottom of page 136 that the last column

I referred to, namely, column 20, included in the fifty-one are forty-six persons killed by accidents at crossings at grade.

A Level crossings.

Q Level crossings; and, therefore, Mr. Koster, it is right to say that the total killed of all these we have mentioned was sixty-five in 1955?

A Yes.

Q Then, Mr. Koster, they give, do they not, the number injured?

A Yes.

Q There were sixteen passengers injured from train accidents, eleven passengers from other causes; two employees from train accidents were injured and fifty-four employees were injured from other causes; and strangers injured under all causes were fifty-six. Of these, the note at the bottom of page 136 states, forty persons of those fifty-six were injured in accidents at level crossings. That is right?

A Yes.

Q So that the total given here, Mr. Koster, of persons injured in 1955 in the case of the Netherlands railways is 139?

A Yes.

Q Now, I want to yank it from you, but if there is anything you want to look at or comment on you may do so.

A I have no comments at all.

MR. LEWIS: That is all I have.

THE CHAIRMAN: All right, Mr. Mundell.

MR. MUNDELL: In view of the very exhaustive work done by Mr. Sinclair and Mr. Lewis, Mr. Chairman, although we started out this morning with a number of unasked questions, we now have no unasked questions left.

BY THE CHAIRMAN:

Q Mr. Koster, did I understand your evidence correctly that apparently on the Netherlands railway -- and, by the way, what is the full name of the Netherlands railway?

A You mean in Dutch?

Q No, in English; is it just the Netherlands Railway?

A Netherlands Railway Company Limited.

Q You did not mention, so far as I recall, that you had any locomotives where the driver or engineer, or whoever is on the locomotive sits up in the front with an unobstructed view, glass all across the front?

A Yes.

Q You have no locomotives of that kind?

A Yes; if you will kindly have a look at this photograph -- I do not recall the number of the exhibit.

MR. MUNDELL: I think it is Exhibit 42.

THE WITNESS: It is locomotive No. 2208.

BY THE CHAIRMAN:

Q Yes, Exhibit No. 42.

A If this locomotive is riding in the direction to the left of this picture then the driver has an unobstructed view.

Q That is the same locomotive as the one shown in Exhibit 43?

A No, in Exhibit No. 43 there is what we call a short end on the other end of the cab.

Q No, it is not the same.

A It is not exactly the same, no.

Q Then, with respect to Exhibit No. 42, I understand that you have no locomotive where the front of it behind which the driver sits is completely glass?

A No, not on diesels, but we have it on electric locomotives.

BY HON. MR. McLAURIN:

Q If Exhibit No. 42 were hitched up to a train, the view part would not be useful. That is really the back end?

A Yes, this locomotive could be attached to the train either way.

Q To the ordinary person it would be the part that is attached to the --

A Engine and connected to the front, yes.

BY THE CHAIRMAN:

Q I understand what you are saying is that the engine in Exhibit No. 42 normally



travels when attached to the train to the right?

A There is no special rule in this respect; it is entirely open to the convenience of the situation.

Q Then, just one other thing. You were speaking about your conception of the duty of the man on a diesel, whatever you call him, in connection with this steam boiler?

A Yes.

Q What do you conceive his duty to be?

A In our country **there** is a law that all steam vessels over a certain pressure have to be attended whether they are automatic or not, so that the man has to check that there is always sufficient water in the boiler and that the pressure is maintained at the right value.

Q He has to do that while the engine is running?

A Yes; but I have to add to this that we do not have boilers on our diesel locomotives because our diesel locomotives are normally used for the hauling of freight trains only. With passenger trains, they are hauled by electric locomotive, and the trains are heated by electricity, not by steam.

THE CHAIRMAN: Are there any questions?

MR. MUNDELL: I have one question, if

I may, arising out of one of your questions, sir.

BY MR. MUNDELL:

Q What is the vision on the self-propelled passenger cars?

A The vision on the self-propelled passenger car is entirely free.

Q Entirely free?

A Yes. The driver is sitting in front of a glass panel.

MR. MUNDELL: Have you any questions, Mr. Lewis?

MR. LEWIS: No.

THE CHAIRMAN: Thank you.

MR. SINCLAIR: I spoke to my friend. On account of my misjudgment of the speed at which I would be able to move this witness through I had made arrangements for Mr. Borntrager of New York --

THE CHAIRMAN: What about Mr. Shepp's cross-examination?

MR. SINCLAIR: I have spoken to my friend about his stepping down, and he said that, with your permission, he had no real objection to my introducing Mr. Borntrager.

MR. LEWIS: No. I understand Mr. Borntrager is here and may desire to leave earlier. I have no objection to delaying the other at all. May I just, not awfully seriously, point out for the record that it was of some help to my learned friend to have

had Mr. Koster earlier, in view of the fact
Mr. Koster has to take a plane this afternoon.

MR. SINCLAIR: Certainly his evidence
has been of great help to me. I am grateful
to my friend for putting his marvelous safety
record on the transcript, which I did not know
about.

THE CHAIRMAN: Whom are you calling
now?

MR. SINCLAIR: Mr. **Borntrager** of
New York.

--

--

--

KARL A. BORNTRAGER, sworn.

EXAMINED BY MR. SINCLAIR:

Q Mr. Borntrager, you reside in New York, New York?

A That is right.

Q And, as I understand it, until the 1st of February of last year you were the senior vice-president of the New York Central Railway system?

A That is correct.

Q And since then what are you doing?

A I have been doing some consulting work for railroads.

Q Including the New York Central?

A Including the New York Central.

Q You graduated from Ohio State University with a degree in civil engineering in 1916?

A That is right.

Q And then you entered the services of the New York Central?

A That is right.

Q In 1917?

A That is correct.

Q Now, what was your first work in the New York Central?

A I was in the engineering department for the first year or two in evaluation engineering work. Later on I was assigned to the maintenance of way department, serving in that as assistant

division engineer; later in construction work as resident engineer.

Q When did you transfer to the purely operating department?

A Well, I was transferred to the operating vice-president's office in the spring of 1926. That was a special job.

Q During that appointment what were your duties?

A My duties largely were -- involved studies of operating and engineering matters.

BY THE CHAIRMAN:

Q Studying --

A Operating and engineering matters.

BY MR. SINCLAIR:

Q When were you promoted to operating, to direct operating responsibilities?

A I was promoted to the job of superintendent in 1939.

Q Where were your headquarters then?

A Headquarters, Columbus, Ohio.

Q What division is that?

A What is known as the Ohio Central Division.

Q And did you have any other superintendencies during your service?

A I was superintendent for about eight years, during which time I was superintendent of the Ohio Central Division, which I have mentioned before, and the Rochester Division and the Mohawk Division.

Q What was your next post with the New York Central?

A Assistant to the vice-president at Chicago, operating vice-president, western district.

Q You were assistant to the operating vice-president in the western district of the New York Central?

A That is correct.

Q What was your next promotion?

A Manager of freight transportation of the New York Central system at New York.

Q How many years did you hold that position?

A About two and a half years.

Q What was your next promotion, sir?

A General manager of what is now our southern district, headquarters at Cincinnati, Ohio.

Q What was your next promotion?

A It was to similar positions as general manager of what is now our northern district at Detroit, Michigan.

Q How long were you there?

A A little over two years.

Q What was your next appointment?

A Vice-president of operation and maintenance of the New York Central system, headquarters New York.

Q When were you appointed to that office?

A January 1, 1953.

Q You held that post for how long?

A For three years.

Q Up to 1956 **just** what was your post?

A Senior vice-president of the system.

Q Senior vice-president of the system?

A That is right.

Q You retired under the pension rules of the New York Central at the end of January, 1st of February this year?

A That is correct.

Q Since then, you told the Commission, you have been in a consulting capacity to the railways, including the New York Central?

A That is right.

Q Now, Mr. Borntrager, will you give the Commission a short description of the New York Central system?

A We have about 10,500 miles of railroad first main.

Q That is miles of road?

A Miles of road, which extends over eleven states, involves New York, New Jersey, Massachusetts, Pennsylvania, Ohio, West Virginia, Indiana, Kentucky, Illinois, Michigan and Missouri.

Q Do you operate lines in Canada?

A Also operate in two provinces of Canada, Quebec and Ontario.

Q Have you an interest in any Canadian railroad?

A We have a controlling interest in the Toronto and Hamilton and Buffalo.

Q And did you hold any office with the
T. H. and B.?

A I was vice-president.

Q Until when?

A Until January 1 of this last year.

Q January 1 of 1957?

A Of 1957.

Q Now, why are you appearing here,
Mr. Borntrager? What was the purpose of
your coming up here to give evidence to
this Commission?

A Well, I have a great interest in this
problem of firemen on diesels, which is a
common problem to all of us in the railroad
business. I gave testimony before
another board here in October, and I feel
that the situation is such I should speak
to the proposition that you now have.

Q Now, have you discussed your views about
this problem, as you put it, with the
management of the New York Central system?

A I have.

Q And are the views that you hold those of
management of the New York Central system
at the present time?

A That is right.

MR. LEWIS: Mr. Chairman, what does
he mean by "management"?

BY MR. SINCLAIR:

Q What do you mean by "management"?

A I would say the president and operating officers of the company.

MR. SINCLAIR: I have, Mr. Chairman, through Mr. Borntrager's courtesy, brought up some maps of the New York Central system which I think would put the matter before the Commission in an easy way. They are rather large, but they may be filed for reference purposes as Exhibit No. 46.

EXHIBIT No. 46: Map of New York Central Railway.

HON. MR. McLAURIN: It is a map of the New York Central lines?

MR. SINCLAIR: Yes, a map of the New York Central lines.

BY MR. SINCLAIR:

Q Mr. Borntrager, generally, how would you describe the terrain through which the New York Central system operates? I think he knows it very well.

A Well, our slogan is that we are the water level road, and for that reason we do represent a relatively low grade line between the eastern seaboard and Chicago, New York to Chicago. That does not mean that all our railroad is favoured with such grades, however, as we do have some heavier grades. We do operate in some mountainous territory. In New England there are heavy grades on our run between

A Albany and Boston, and we have rather heavy grades in our Adirondacks-St. Lawrence division.

BY THE CHAIRMAN:

Q Are all the railways on this map, Exhibit 46, which are either double lines or multiple lines, New York Central lines?

A That is right; the heavy blue lines are all New York Central lines.

Q Then that railway runs down to the southern states?

A That is right, and down in Pennsylvania. You note there is a line going down to Pennsylvania. That is rather ^{rugged}~~regular~~ terrain down there, in the Appalachian mountains, and the same way into West Virginia; so we do have a degree of mountainous territory as well as level territory, and we do operate into rather high density of traffic and low density of traffic.

BY MR. SINCLAIR:

Q What about the kind of line along the Hudson here? This is your main line into New York?

A On that line the grade is very level, but from Poughkeepsie south we follow the river, of course. It narrows through the Hudson highlands and the curvature is rather severe in that area.

BY THE CHAIRMAN:

Q You mentioned a line running into West Virginia. Where would that be?

A You find Toledo and Cleveland. It is the line; you follow it down.

BY HON. MR. McLAURIN:

Q Down to Fairmont?

A Yes, down through there, across the Ohio river, north of Gallopolis. Point Pleasant is our crossing.

BY THE CHAIRMAN:

Q The line that runs through Charleston, that is New York Central?

A It is New York Central. You see Moody Creek down there. That is the end.

Q That is West Virginia?

A That is right. After crossing the Ohio river we are in West Virginia.

BY MR. SINCLAIR:

Q What is your level of revenue ton miles? What is the revenue ton miles freight per year of the New York Central system?

A I cannot recall the revenue ton miles, but we usually run a little over 10 million gross ton miles per mile of road.

Q Gross ton miles?

A A little over 10 million per mile of road.

Q Gross ton miles per mile of road. Do you know how that compares with the Canadian Pacific gross ton business?

A I made some comparisons the other day, I think it is about two and a half times greater than that of the Canadian Pacific.

Q Is your railroad a single or a multiple track railroad?

A We have some in each category. The lines are shown on the map, each line representing a track.

Q Exhibit 46, you say, shows by the number of lines whether it is single or multiple track?

A That is right.

Q And what is the situation on your railroad in regard to highway crossings at grade?

A We have a great many of them, yes.

Q Are they protected by automatic devices?

A Some of them are; many of them are not.

Q What warning is given on the ones that are not automatically protected?

A We have a warning sign which we call the crossbuck sign, two blades crossing, indicating a railway crossing.

Q It has been referred to here as a St. Andrew's cross by another witness.

A There are different types of them.

Q Do you run both passenger and freight trains on your railway, all over it?

A We do.

Q What proportion of your business is passenger traffic?

A There are different types of them.

Q Do you run both passenger and freight trains on your railway, all over it?

A We do.

Q What proportion of your business is passenger traffic?

A Measured in revenue about 23 per cent.

Q Measured in train miles, do you know how much it is?

A Measured in train miles it is roughly 50 per cent.

Q What kind of motive power do you use on the New York Central?

A We have steam, a small amount of electric multiple units, electrical multiple units operation and self-propelled motor cars and diesels.

Q What proportion of your transportation is performed by other than diesel or electric motive power?

A Well, during 1956 less than 1 per cent of the passenger traffic was handled by steam; the rest either by electric or diesel power, and in freight service about 3 per cent was handled by steam and the other was handled by either electric or steam, and in switching I believe less than 1 per cent was handled by steam in passenger service and about 7 per cent in freight service.

Q Seven per cent and one per cent in the

last two categories you gave are steam switching?

A Steam switching; the rest was either electric or diesel.

Q And how would electric and diesel compare?

A Well, the diesel is by far the predominant amount; a comparatively small amount was electric.

Q It would be less than 10 per cent?

A Yes, much less.

Q Much less than 10 per cent?

A Yes.

Q The balance is diesel; is that correct?

A That is correct.

Q Compared with other railways in the United States, in what position does the New York Central system stand?

A Well, measured in volume of business and revenue we are second.

BY MR. LEWIS:

Q Volume of business measured in revenue?

A Measured in volume of business and revenue.

BY MR. SINCLAIR:

Q Do you know approximately how many diesels you have on the New York Central system at the present time?

A About 1,950.

Q That is, units?

A Units.

Q Including road and yard?

A That is correct.

Q How many of these would you have purchased say before 1950?

A Well, I believe the majority of them have been purchased since that time. I have not the figures in front of me. I believe the majority have been purchased -- heavy purchases made in 1949 and 1950, I know.

Q So the majority have been purchased --

A I believe since 1949.

Q You believe the majority have been purchased since 1949?

A Yes.

Q Do you believe the big purchases made in your railway were in 1949 and 1950?

A They were very heavy at that time.

Q Now, based on your forty years' service in the New York Central system, what has been the most important change, in your opinion, in railway operations?

A Well, there have been many changes, some of them big, placed over a period of time, but I think the diesel in the short time has produced more changes than any single thing that I can mention.

Q What has the diesel done on the New York Central system, Mr. Borntrager?

A It has been helpful to us in many ways. I think in all the major blocks of expense it has made a contribution, even in

maintenance of way. We are relieved of excessive expenses involved in many large water stations, coaling stations, reduced the maintenance of track since I think the impact is not as heavy with a diesel as with a steam locomotive, and over on the equipment side it has materially reduced the number of man hours required to do the necessary work of motive power. In fact, it has almost eliminated such large grades as boilermakers and blacksmiths. They have been reduced to a very small number of people in those departments. Of course, the biggest thing, I think, is in the transportation end of it, the biggest department, but it has reduced the cost of fuel considerably, and due to its inherent characteristic the diesel on grades where we had ~~large~~ pushers has been such that we have eliminated a considerable amount of pusher service, helper service.

Q Has the diesel changed the work requirements of engine crews in your opinion?

A Oh, it has materially, the work performance of the head end crew, particularly as to the firemen.

Q On the New York Central have you translated this change into accounts in any way?

A Unfortunately, no.

Q Why not?

A We have been faced by labour agreements which call for both engineer and fireman on diesel engines as well as on other engines, of course, and this prohibits us from making any adjustments as to the number of crew required to operate the engine.

Q When did the New York Central first introduce diesel power?

A It was in the middle of the latter 1930's, about 1937, I believe, that we went into yard power, and the middle of the 1940's we began getting road power.

(4) Q Prior to the introduction of diesel power in yard and on the road, as you say yourself, in the middle 1930's and roads in the middle 1940's, what type of motive power did you use on the New York Central, electric or steam?

A We had a small amount of electric operation, particularly in the New York area. Aside from that it was practically all steam.

Q Now, in your experience with the New York Central, were there introduced technological changes in the steam power that affected crew requirements on the locomotives?

A About the biggest one in my day was the mechanical stoker. That came in, I think, probably in the 1920's, and it materially reduced the amount of work the fireman had to do in that he did not have

to shovel the coal, but he was still responsible, of course, for maintaining fires, maintaining the pressure of steam.

Q Then, you said the diesel came along. How would you describe the effects of the diesel on the requirements of the fireman's work?

A It, I would say, eliminated the major duty of the fireman, which is providing the fire.

Q Did it introduce additional duties for the fireman?

A No.

Q Based on your experience on the New York Central, and the requirements of service in the territories in which you operate, how would you compare the New York Central system with the Canadian Pacific?

A Well, what I have seen of the Canadian Pacific I do not think it is substantially different from our line, at least the eastern portion of it. I am not familiar with the western portion of it, having been as far west as Banff at one time. I am not familiar with the western portion, but the eastern portion would not be different from ours except, as I have said before, we have some heavier density, but so far as general operating conditions are concerned, I do not think there is too much difference.

Q Based on your operations on the New York

Central and the requirements of the service of the New York Central, what in your view is the necessity for firemen on diesel yard and freight locomotives?

A I don't believe they are necessary.

Q When did you come to that conclusion, Mr. Borntrager; how long have you had it?

A Well, I believe that I had it in the general way back in the 1930's when we began getting them, in 1936 or 1937, as I was beginning to see them operate, and then later when I became superintendent and had some opportunity to observe them I came very much to the opinion that they were not necessary.

Q You became superintendent in 1939, I recall?

A That is right.

Q And as superintendent, and in your other operating positions after that, did you ride locomotives on the New York Central system?

A I have.

Q Extensively, or just off and on?

A Off and on.

Q Now, in answer to my question as to whether firemen were necessary you said they were not. Is there any exception to that, in your opinion, Mr. Borntrager? I am talking now of freight and yard.

A Well, there might be here and there a point where I do not think they would be necessary, but there might occasionally be

points where the view would be restricted, things of that nature, when firemen could be used, signalling given on that side. On the other hand, I do not think that any of those cases could not be corrected. As a matter of fact, we have corrected some ourselves just to expedite the switching movements.

Q You say, as that could be corrected you would not say that firemen would be necessary in those cases?

A No, there are other means for those isolated instances that you could handle in another manner.

Q What, for instance?

A Well, I had in mind some places where we have recently put in some signals that the ground crew could operate, could operate the signal and the engineer could see it. Then, there are other cases that I am quite certain could be cleared by dual controls in diesel locomotives.

Q Have you any dual control locomotives on the New York Central?

A No, we have not.

Q Now, in your work on the New York Central system did you have anything to do with the question of crew assignments; in the labour agreement that you referred to that compelled you to have these firemen

this came into effect?

A No, it was in effect before I became an operating officer.

Q In subsequent years did you have anything to do with it?

A I had the handling of the men, yes, that is right.

Q And have you an opinion as to the position of firemen and helpers so-called on diesels? What have you done about it?

A Well, in view of the agreements now under which we operate there is very little in a practical way you can do. I have always taken the position, though, and to the extent I can use my influence, to work towards having the rules changed.

Q When did you make the overt move in regard to the question?

A The overt move came this last year when we began to form the proposal of the American railroads to change the rules so that it became optional with management where they should use diesel locomotive firemen.

Q Did it specify any classes of the service, or was that a general rule?

A That was a general proposal.

Q What happened to that proposal, Mr. Borntrager?

A Well, that proposal was finally given up in the light of the fact that decision was

reached to endeavour to settle with what is known in this country as the running trades -- we call them the operating units -- to settle on a three-year agreement and not carry the matter to boards.

Q As a result of that **the proposal to give** each railway the right to determine at their discretion, or whatever your words were, the right to assign firemen to diesel power was withdrawn?

A That was withdrawn at that time.

Q What is the intention of the New York Central, or do you know what the intention of the New York Central is about reinstating that proposal as to the employment of firemen?

A I am no longer an officer of the company, but I would say that proposal will be carried on and ultimately hope to get the results that were embodied in this 1956 proposal.

Q Were you consulted in connection with the withdrawals of the proposal?

A No, I was not.

Q Do you know what factors -- you were part of this senior management. Were you told by the New York Central or by anybody else why it was withdrawn outside of what you have told us?

A I do not know except in a general way. It

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was supposed to be a tactical move that was to benefit the getting of operating agreements on a three-year basis, and this was one of the points that was given up in order to endeavour to accomplish that.

Q What if any part did the contribution, again if any, of firemen to safety have on that position?

A Safety was never mentioned as a factor at all. It is not a factor, as I understand it.

Q What about efficiency as a factor in withdrawing the proposal, efficiency contributed, again if any, by firemen?

A That was not mentioned.

Q On the New York Central was there any doubt about the matter in your senior management that would require further reappraisal of the contribution, if any, of firemen to safety and efficiency?

A No, I think our mind was well made up on that.

Q Your mind was made up. What was the answer?

A Our mind was well made up on that, as I have answered before our position.

Q What was that?

A The position was that the firemen are not necessary in diesel yard locomotives or diesel freight locomotives.

Q Now, over the years, in the 1940's when you were actively engaged in the running of the sections of the New York Central system, and later in the senior management posts in the 1950's, did the firemen's union take any steps in regard to the question of crew assignments?

A Steps were taken during this period which were of the nature of trying to assign more men to the diesel rather than less.

(5) Q Why was that done, in your opinion?

A Well, it seemed to me that this job which, in my opinion, had dwindled into almost insignificance --

Q What job?

A The job of fireman on diesel locomotives.

Q Dwindled into almost insignificance, you say?

A That is right. An attempt was made to split the job into two parts; one was the so-called watching duty, look-out duty, and the other was patrolling the engine-room, and in so doing advocating one man for each job.

Q Who proposed this suggestion?

A The firemen's organization.

Q What happened to these proposals?

A They went to an emergency board, and each time they were turned down.

BY THE CHAIRMAN:

Q What is an emergency board, Mr. Borntrager?

A Presidential emergency board. When there is a threat of a strike in the United States on the railways the president has the power to appoint a board, a fact-finding board, to hear the evidence and make a report.

BY MR. SINCLAIR:

Q To summarize your evidence, you say this resulted in an attempt to split the job of a fireman or a helper so-called on the diesel into two parts. You said the watching or the look-out and mechanical. Are they the two parts?

A That is right.

Q And these were defeated, I take it?

A That is correct.

Q And in support of these suggestions, how were they defeated? What was the cause of the defeat of those proposals, do you know?

A Well, I have read a considerable portion of the testimony of those boards. The general tenor of it seemed to be that the firemen --

MR. LEWIS: What is the witness being asked? Is he being asked what the conclusions of the emergency boards were? If that is what he is asked, they are in published form. My learned friend can no doubt supply copies to the Commission. What was the opinion of other witnesses given in his absence? If that is the

point, there is a transcript of the evidence.

I do not know just what this witness can tell my friend in answer to his question on that point.

THE CHAIRMAN: Read the question,
Mr. Reporter.

THE REPORTER (reads):

"And in support of these suggestions, how were they defeated? What was the cause of the defeat of those proposals, do you know?"

THE CHAIRMAN: Mr. Sinclair, if the witness is going to answer that from some testimony he read before that board do you think it is going to be helpful here? Has he any knowledge as to why the board decided as they did? I suppose that is your question.

MR. SINCLAIR: I think the board would decide on the evidence, sir. Here is a man who is an undoubted expert in operations, having spent forty years of his life directly in it. He would be able to look at the evidence, as he says, and assess it. It is his assessment as against somebody else's, Mr. Lewis' assessment, or my assessment. I would think his assessment would certainly be better than mine; I do not know about Mr. Lewis' assessment.

THE CHAIRMAN: Well, perhaps the way to get at it would be to ask the witness what he thinks about the necessity of the two proposals.

BY MR. SINCLAIR:

Q All right. Mr. Borntrager, in your opinion, and based on your experience, what is your view as to the need for a fireman helper so-called on a diesel electric for look-out duties?

A I think he is unnecessary.

Q Why?

A Go back to the days of steam on either passenger or freight locomotives. The fireman, well, his duties were practical. He had to maintain a look-out. As a matter of fact, at least in the hand-firing days, 75 per cent of his time was firing, and in the stoker days he had that, his line of responsibility was maintaining steam, looking after his equipment, fuel, and so forth. Consequently, in those days we could never hold the fireman responsible for look-out duties. I have heard many investigations as a superintendent, and I never knew one yet where we had an accident where the fireman was not down fixing the steam, looking after the coal, or something; so I do not know of any time, of any serious accident that you could hold the man responsible for it. Well, if you could not hold him responsible then, I do not see any particular reason. We hold the head brakeman or the front trainman responsible.

He did not have any duties like that. He could do the look-out job. I do not see any reason, now that we are taking away the fireman's firing duties, and still have the head brakeman available, why we need anybody on duty look-out on the left side of the locomotive.

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BY THE CHAIRMAN:

Q. That is half the answer. What about patrolling an engine?

A. I think the first portion was directed to the lookout portion.

BY MR. SINCLAIR:

Q. Is there anything further you want to add to the matter of lookout?

A. No, I think that covers lookout.

Q. What about the second part, the mechanical part?

A. The mechanical duties I think have shrunk to such a level that it is not essential to have the firemen patrol the engineroom. As a matter of fact, with the newer type of diesels known as road road switchers, he cannot do it anyway; there is not an engineroom to patrol. So, if we talk about operating that type of locomotive -- and we think we will operate more and more of them without patrol -- then why require a man to perform that function which we do not think is necessary.

BY THE CHAIRMAN:

Q. Just let me understand that. You say there is no engineroom to patrol in the case of certain locomotives - everything is out in the open, so to speak?

A. That is right.



BY MR. SINCLAIR:

- Q. Have you any other facts that you wish to bring to the attention of the Commission concerning any mechanical requirements of the firemen that might be on trains over the road? Have you any other experience in the New York Central that you think would assist this Commission in assessing the need?
- A. I think we proved it in rather a practical way that we could operate without a fireman patrolling.
- Q. How did you do that?
- A. In one of these board decisions, the matter moved out --
- Q. An emergency board?
- A. An emergency board decision. The matter of lookout was gone into at some length, and the board recommended, and the railways adopted and formed an agreement through the men, that on high speed main line operations --
- Q. On what kind?
- A. Passenger operations -- that the firemen should be in a position to observe conditions ahead at all times, which would mean he would have to be on the seat box and prepared to observe conditions ahead. We have complied with that rule, and our operations are such

that we have lots of this type of service, in our main line service. We operate substantially all of that out of a diesel pool of 155 units. We have not experienced any great difficulty in operating under that basis, which to my mind proves that it is not essential that the firemen be patrolling the engine room and doing duties of that kind.

Q. When you say these engines operated out of pools, what do you mean by that?

A. I mean there is a pool of engines assigned to this service.

Q. To which service?

A. Passenger service - through passenger service - and these are set up largely in schedules, but it works out that they are first in and first out; so, you do not know what locomotive will be assigned to what train on any particular day.

Q. On all diesel consists, on all diesel locomotives out of this pool, is the fireman under the agreement with the Brotherhood required to take his position on the seat box throughout the run?

A. He would not be in all of them. He would be in quite a large percentage of them. The point I am making is that all pool engines must be in such condition that it can be

operated in that manner.

Q. Whether the man sits there or not?

A. That is right.

Q. That is on these trains to which the watching agreement applies, the firemen --

MR. LEWIS: Excuse me, Mr. Chairman, but my friend added to the witness' statement the words "Whether the man sits there or not". As I understand it, the man has to sit there.

MR. SINCLAIR: I think I asked Mr. Borntrager the question first as to whether the watching agreement applied to all that pool; and his answer was no, that a large majority did, but some did not. That is what he said, if I heard him correctly. Then I asked him the question to which my friend now says I added something to his answer. I do not know that my friend is having as much difficulty hearing as I am ...

THE CHAIRMAN: We will have the Reporter read your last question.

(Reporter reads previous question and answer).

BY THE CHAIRMAN:

Q. Now what is your answer?

A. The answer is that all pools must be maintained in such condition that they can be operated successfully whether the man is sitting on the seat box or free to move around.

BY MR. SINCLAIR:

- Q. How many miles on an average do you run where the rule requires the firemen to maintain his position at all times the train is in motion?
- A. Frankly, I would not know. I would say from one-third to one-half of this pool would operate under that basis.
- Q. How long would the runs be - how long would these locomotives be running non-stop?
- A. Some of them would go as far as St. Louis, and as far west as Chicago.
- Q. That is, non-stop?
- A. I thought you meant length of time?
- Q. How long would these locomotives run non-stop?
- A. Some of them may go as high as 100, and some of them go as high as 130.
- Q. During that time who would be performing any checks or adjustments necessary in the engine room?
- A. There would be none made unless they are stopped. If something happens, and occasionally it does, they would stop the train and make an adjustment of it.
- Q. Who is "they"?
- A. The engineer.

THE CHAIRMAN: Where is the seat box located?

BY MR. SINCLAIR:

Q. Mr. Borntrager, on your diesels, where under the agreement you are required to maintain a fireman on the seat box while the train is in motion, where is the fireman's seat?

A. It is on the left-hand side of the locomotive cab.

MR. MUNDELL: Is that the ordinary seat that one sees there?

BY MR. SINCLAIR:

Q. Mr. Borntrager, why do you call it a seat box?

A. Maybe I should not use the term seat box - I should say seat.

THE CHAIRMAN: What type of locomotive is this - and I do not mean diesel or steam locomotive? Do the engineer and firemen sit in the front of the locomotive, or where do they sit? Have you any photographs?

MR. SINCLAIR: It was my intention to introduce photographs through another witness. But I could ask about the type of unit; if you will bear with me I will clear that matter up later.

THE CHAIRMAN: Yes. You are dealing with a special type of service now; you might as well tie it in.

BY MR. SINCLAIR:

Q. What type of diesel power have you got in

the pool, that is the high speed passenger trains to which the agreement requires the fireman to maintain continuous lookout ahead?

A. They would be the closed body type. Some of them are Alcos, some of them are General Motors manufacture, some of them are Fairbanks-Morse -- I think we have a few Fairbanks-Morse.

Q. But generally they are the covered type?

A. Yes.

Q. The enclosed type?

A. Yes.

Q. And the cab panoramic view is from the front?

A. Yes.

Q. The cab is at the front of the locomotive?

A. That is correct.

BY THE CHAIRMAN:

Q. How many men are in the cab in this service you are speaking of?

A. Two men in the cab.

Q. The engineer, and the fireman who is required to sit as you have described?

A. Yes.

BY MR. SINCLAIR:

Q. The point you are making in regard to the mechanical requirement of helpers on diesel power is what?

A. That if power can be maintained as successfully

as that in a very sensitive portion of the operation, I think it indicates that it is practical to do it in any type of operation.

Q. With respect to diesels on the New York Central system, what type have you had generally under your control and supervision?

A. Do you mean as to manufacture?

Q. No, as to type. Are they all the car body type, or have you any road switcher type?

A. Our earlier ones were car body type, but the latter ones have been road switcher type.

Q. What type of yard diesels do you use?

A. Practically all of them are the standard yard diesels.

Q. Have you got various types of manufacture?

A. Yes we have.

Q. What is the large proportion?

A. The large proportion is General Motors - the Electro-Motive division.

Q. The Electro-Motive division of General Motors?

A. Yes.

Q. And that you say is your large proportion?

A. Yes.

Q. You have Alco?

A. Yes.

Q. And you have Fairbanks-Morse?

A. Yes.

Q. Have you any Baldwins?

A. A few.

THE CHAIRMAN: Mr. Sinclair, we have gone past our usual time for a break. I am satisfied to go through if you are, Mr. Sinclair.

MR. SINCLAIR: Whatever you wish, Mr. Chairman.

THE CHAIRMAN: Mr. Lewis?

MR. LEWIS: I think we can go through.

THE CHAIRMAN: Very well, we will continue.

BY MR. SINCLAIR:

Q. Taking the matter from a historical point of view on the New York Central, what was the duty of the fireman in passenger service?

A. Well, historically he was charged with the primary duty of producing power, which required him to fire a steam locomotive, maintain proper steam pressure and produce that power.

Q. What was your experience when he was working on a hand fired locomotive? Do you know what was the experience on the New York Central system as to safety of operations in passenger service with the fireman on the deck?

A. We felt that we had a satisfactory performance from the safety standpoint.

Q. Who maintained a lookout on the left-hand side then, on the passenger service?

A. There was only a spasmodic lookout; when the fireman was available he observed, and if he

was not available there was no observation.

Q. What speed did you run your **steam** passenger trains at of that type?

A. Our top speed was 80 miles per hour.

Q. What is your top speed with diesels?

A. Eighty miles per hour.

Q. In passenger service?

A. That is correct.

Q. On freight operations, historically what was your crew assignment on steam power?

A. The engine crew assignment?

Q. Yes.

A. There was an engineer, and fireman, and also in the cab of the locomotive would be the head brakeman.

Q. And when you were in the hand fired steam power --

THE CHAIRMAN: Mr. Sinclair, I did not follow that last question and answer.

MR. SINCLAIR: I asked him, historically, when he was in steam power in freight operation, what was the crew assignment. He asked me whether it was on an engine? I said yes. He said, an engineer, fireman and head brakeman.

THE CHAIRMAN: You are going to develop that.

BY MR. SINCLAIR:

Q. On that type of power, Mr. Borntrager, what

was the engineer's duty?

A. His duty was to operate the train properly and observe operating rules; he was responsible for getting the train over the railway.

Q. And what was the duty of the trainman?

A. The head trainman, as far as his duty in the cab was concerned, it was to observe the condition of his train where practicable and to keep a lookout ahead.

Q. What was the fireman's duty?

A. The fireman's duty was to fire the engine, if it had to be hand fired, or if it was done by a stoker to see that it was operating properly to maintain steam; and when practical, to observe signals ahead.

THE CHAIRMAN: What would be the position of the head trainman in the cab?

BY MR. SINCLAIR:

Q. Where would the head trainman sit in a cab on the New York Central system?

A. He would sit on the left-hand side of the cab.

Q. Since the diesel power has come in has there been any change in the engineman's duties?

A. Basically he is still responsible for the same thing as he was before, that of operating his engine.

Q. Taking it on the passenger service, is there

any change in his duties on passenger trains, diesel versus steam?

A. His basic duties are to operate the locomotive, observe signals, and so forth and so on.

Q. Is there any change in the fireman's duties, on passenger trains, diesel versus steam?

A. The difference would be that he is not required to keep up the fire to produce steam. That has vanished.

Q. Outside of that, has his duty changed?

A. His duties are the same with respect to observing signals and so forth.

Q. On freight trains, has there been any change? Do his duties in any way differ from what you have described as to the change in the engineer's or fireman's duties?

A. I would say the change is substantially the same.

Q. And on freight trains has there been any change in the duties of the head trainman on diesel versus steam?

A. No, the duties of the head trainman are the same as they were.

Q. What has been the general position of maintaining a lookout on the left-hand side of a freight train on your railway? You explained that when you had investigations you always found the fireman on the deck, I think you said ...

A. Yes.

Q. Or you were unable to pin it on the fireman?

A. Yes.

Q. What has been the general position on the New York Central as to the maintenance of a lookout on the left-hand side of freight trains?

A. The head trainman observes conditions on the side of the train; he may go on either side if he cares to, but he certainly has the left-hand side; and he observes conditions ahead.

Q. What has been your experience when a head trainman inspects his train? How long does it take him to do it?

A. The best place to inspect the train is on a curve, when it is exposed to their view. The inspection takes the nature of seeing whether something is wrong; that is, whether they see sparks flying, smoke or something of that kind. That can be ascertained in a glance of a couple of seconds or so, depending on what his view is around the curve.

Q. And in the rest of his time where was the head trainman looking?

A. The rest of his time he can look ahead.

Q. Does that situation still exist with diesel

power as it did with steam power?

A. Not quite the same, because with steam power we always had the problem of train smoke and steam, which sometimes hampered the men from checking their train. Now that has been eliminated, and it is somewhat easier and faster to check a train.

Q. You say it is easier and faster now?

A. Yes.

THE CHAIRMAN: Mr. Sinclair, I wish you would find out whether these duties which the witness has been speaking about, of the head trainman and fireman on diesels, are laid down in any written form, or whether they are part of their general education and training.

BY MR. SINCLAIR:

Q. On the New York Central system how are the work requirements of an engineer delineated?

A. The book of rules contains certain broad prescriptions of his job and his responsibilities; the rest of them are obtained through instructions, bulletins and so forth.

Q. When a man is going to take over an engine does he know what is expected of him through practice?

A. You mean a man that is promoted to an engineman?

Q. Yes.

A. Yes; he has to take examinations.

Q. Where are the duties of a fireman set out, if they are? Are they set out in your rules?

A. They are set out in a general way in the book of rules, and are issued in instructions from time to time.

Q. Do you know any specific instructions as to what a fireman must do on a diesel locomotive on your railway?

A. It is not spelled out in that sense.

Q. What about the head trainman?

A. The head trainman's duties are given substantially as I have given them in the book of rules.

Q. Now turning to another aspect of your operations: You said earlier that you had a certain number of self-propelled cars, passenger cars, did you not?

A. That is correct.

Q. Where do they operate?

A. Well they operate all over the system - at various points on the system.

Q. What are they known as?

A. Budd cars.

Q. Is a fireman assigned to these cars on your railway?

A. On some they are, and some they are not.

Q. What determines whether they are assigned or not?

A. On single units we have no firemen assigned, but on multiple units we do.

Q. Why do you assign them on multiple units?

A. In compliance with the agreement with the fireman's organization.

Q. It requires the assignment of firemen on Budd cars?

A. That is correct. When they operate in excess of 90,000 pounds on drivers they require a fireman. If you have a single Budd car you are slightly under 90,000 pounds, but when you put two of them together you exceed 90,000-pound limit.

Q. So that there is an exception under your labour agreement that enables you to operate self-propelled cars carrying under 90,000 pounds without a fireman?

A. That is correct.

Q. Is there any other exception?

BY THE CHAIRMAN:

Q. Before you leave that, where does the fireman ride when he is required in the multiple Budd unit?

A. There is not any place for him to ride, but they put a little seat on the left-hand side.

Q. On the lead unit?

A. On the lead unit, yes.

BY MR. SINCLAIR:

Q. Is there any other exception to the assignment of firemen under your agreement, Mr. Borntrager?

A. No; all other units of power have firemen.

Q. What about yard service? Does your under 90,000-pound rule apply to yard service in the New York Central?

A. It would if we had any, but we do not have any units that small.

Q. Does your agreement contain an exception?

A. The agreement contains an exception; if we elect to have them we could operate diesel yard engines under 90,000 pounds without a fireman.

Q. Why do you not have them?

A. We have felt that we have not any assignment that could efficiently utilize that light type of power.

Q. Have you any comment that you wish to make on the agreement that requires you to maintain a fireman on a locomotive, except road locomotives under 90,000 pounds and yard locomotives under 90,000 pounds? What do you think of that type of exception?

A. I think it indicates the absurdity of this rule. Why should it be safe to operate a locomotive of 89,990 pounds without a fireman, and when you add 15 pounds you

have to put a fireman on? It seems to me that points up the absurdity of the watching rule.

Q. At what speed do the Budd cars run which are operated without a fireman?

A. They run at whatever speed is permissible on the track over which they operate. They go as high as 80 miles per hour, which is our top speed.

Q. They run just as fast as any other trains?

A. Many of them run over our main lines at the same speed as conventional trains.

Q. Have you any passenger operations which operate with less than two men in the cab?

A. Only our multiple unit operations.

Q. I am talking about other than your Budd cars now.

A. That is right. We used to have some gasoline motor powered, but I think the last one was retired about three years ago.

Q. You have your multiple unit operations?

A. The only thing we have is our multiple unit operations in the suburban territory around New York.

Q. Before I go into that, would you mind telling the Commission if you can how many Budd cars you have on the New York Central?

A. We have twenty.

Q. Going now to the multiple unit operation that

operates out of New York Central station - is that correct?

A. That is correct.

Q. To where?

A. We have two divisions over which it operates; coming out of the Grand Central we have the line to ^{Mott}~~Mount~~ Haven, about five miles north of Grand Central terminal. At this point the line splits, its easterly leg going north to join the Boston and Albany line at Chatham. This line is electrified to North White Plains, a distance of 24 miles out of New York. That would be about 19 miles more than you would have on the ^{Mott}~~Mount~~ Haven line.

Q. A total of 24?

A. Twenty-four. The westerly line parallels Harlem and the Hudson River and goes as far north as Croton.

Q. How many miles is that from the Grand Central terminal?

A. Thirty-four miles.

Q. What do you mean when you use the expression "multiple units"?

A. They are cars equipped with motors underneath them, and shoes that will contact the third rail. This permits the car to be operated either singly or in multiples, each car having its own power.

Q. And are firemen assigned on these trains?

A. They are not.

Q. How many men are in the cab of the leading unit of these trains?

A. One.

BY HON. MR. McLAURIN:

Q. Are these commuter trains?

A. Yes sir.

BY MR. SINCLAIR:

Q. How many cars do you run in multiple units?

A. I think 16 is the top.

Q. How many passengers do you have on each train?

A. They would handle from 1,300 to 1,400 people.

Q. What kind of headway do these trains run on, that is, how close together?

A. I think they are scheduled at a minimum of two minutes. Of course when they get congested they may get down as low as one minute headway between trains. But they are scheduled on a minimum of two minutes headway.

Q. You say they sometimes bunch and get down to about a minute?

A. Yes.

Q. How many men are on the head end of those trains?

A. One man.

Q. How many other members make up the train crew?

- A. It would depend on the size of the train:
You will have one conductor and assistant conductors sufficient to collect the fares in the proper length of time.
- Q. How many of these trains do you operate out of Grand Central station in a day?
- A. I do not know precisely the total number in and out of Grand Central, which by the way includes ^{Mott}~~Mount~~ Haven which operates in a similar manner there - runs about 500 to 600 total movements.
- Q. In 24 hours?
- A. In 24 hours.
- Q. How fast would they run on this territory?
- A. The territorial speed is 60 miles an hour, but getting into the proximity of Grand Central terminal that is reduced to 35 miles, and as you get down to the throat of the yard it is reduced still further.
- Q. You say there is one man on the head end, and a conductor and some assistant ticket collectors, and the train would be moving at a speed from starting to 60 miles an hour?
- A. That is correct.
- Q. On various parts of the road?
- A. Yes.
- Q. What has been your accident record for

that type of operation?

A. It has been a very good one.

Q. Have you ever considered trying to improve it by putting the firemen up there to assist in maintaining a better lookout for safety?

A. We have had this operation in effect over half a century and with our excellent record I would hate to tempt fate now to try to take it and put somebody else into it.

Q. When is the last time you had a fatal accident on there, do you know?

A. I do not know when. We have had trespassers killed and that type of thing, but as far as a train accident is concerned -- and you mean a train accident?

Q. Very well, let us say a train accident.

A. I think probably the last one was back in about 1951; that is the last serious one, and it was not so very serious - nobody was hurt.

Q. I should like to direct a few questions to you on yard operations. Does the New York Central operate hump yards?

A. We do.

Q. Mechanical or ^{manual} ~~man~~?

A. Mechanical.

Q. Do you do flat switching in yards that have no hump?

A. We do.

Q. Have you some completely flat switching yard on the New York Central?

A. Yes.

Q. Do you do industrial switching on the New York Central?

A. We do.

Q. Having in mind those types of operations, have you supervised that type of yard operation, or those various types?

A. I have not directly supervised them, but as superintendent I have been in charge of divisions which handle those things.

Q. You were never a yard master?

A. That is correct.

Q. But you have had on your division these various types of operations?

A. Yes sir.

Q. That is, when you were superintendent?

A. Yes.

Q. And taking them into mind, what is your view as to the requirement of the firemen in yard diesel operations?

A. I believe he is unnecessary.

Q. Why do you say that?

A. We have discussed these road duties of firemen, and indicated the lack of necessity there.

Well, I think the necessity is much lower in

yards due to the fact that the movement is slow; there are plenty of people around to give signals; the mechanical duties are not required. They were not required on the road, but in a yard there is even less necessity for them. If you have a little trouble the road you will hold up other trains possibly, but if you have a little difficulty in the yard, the yard engine can be put aside and if necessary worked on by the mechanics, with very little delay or trouble.

Q. You say there are lots of people around to give signals. Who are those people?

A. There is the ground crew assigned to the locomotive.

Q. On the New York Central is there any rule or practice as to how or to whom signals are to be relayed from the ground to the engineman?

A. There is no hard and fast rule, but we have always insisted that wherever practical they should be given to the engineer.

Q. Why?

A. Well, I think that a very good and sufficient reason is that you minimize the chance of error in the relaying of a signal - you cut out one of the relays when you do that.

Q. Have you a situation on the New York Central

in
in the yards, including that industrial
switching yards, where signals must be given
on the left-hand side?

A. Well, off hand Mr. Sinclair, I cannot think
of any; there may be some, but they would be
the isolated instances.

Q. And if the fireman were on the diesel yard
engine how would you look after those isolated
instances, if you have them?

A. I think in some cases we might place a signal
that could be operated by the ground crew to
convey the indication to the engineman; or
we could put in dual controls so that for
that particular move the engineer could shift
to the other side.

Q. Based on your experience over the railway and
in yards under your supervision as superintendent,
did you think the firemen contributed by
maintaining a lookout on the left-hand side
of the yard movement?

A. I did not think there was any contribution.

Q. With a third man in the cab on freight diesels
or two men in the cab of yard diesels, do you
think there is any untoward effect on having
an extra man there, rather than the two you
suggested for road service and the one you
suggested for yard operations?

A. Frankly, I think it has a tendency to detract

from the safety of the operation; I think, on balance, that is so.

Q. Have you anything to support that thought?

A. I do have some cases. In the past we have had some accidents where we have had additional men in the cab. I call to mind one case which happened back in the steam days, but nevertheless the principle is the same. We had an engineer and fireman and a road foreman of engines on this particular train. The train entered a curve with a heavy curvature. The engineer should have slowed down before he came to it. The result was that the locomotive overturned and we had a very disastrous derailment - in which 20 odd people were killed. Unfortunately, the engineer and fireman are dead and we do not know what happened in that case.

Q. What about the road foreman?

A. The road foreman came out of it without giving a very coherent account of what happened. Then we had another one a little later which involved an engineer and fireman on a steam locomotive, and again we had a road foreman with him. This time it was a boiler explosion - a steam power boiler explosion. All three men were killed, and we do not know exactly what happened. Why did they do it?

We were particularly disturbed about it because an investigation developed that the low water alarm, which was on this locomotive and which would have warned them that the water was low, was in an acting position; tests on other locomotives proved that it was working. That is the only clue we got - the low water alarm was working. They did not pull the fire, and they went to Kingdom Come. Why they did not pull the fire, we do not know.

Q. Those are examples from steam power. Have you any examples of diesel power?

A. Well, I think probably as good a one as any is something that happened last month.

Q. On your railway?

A. On our railway. In this case they were operating in a signal territory with automatic train control and centralized traffic control.

Q. This is a part of the track, Mr. Borntrager, that I think the President of the New York Central system called the safest piece of track in the world today?

A. That is the same territory.

Q. Would you go on and tell the Commission what happened?

A. Two trains were approaching on the same track. The dispatcher planned to move the freight

train to an adjoining track through a cross-over, which was then three or four miles ahead of the passenger train. To do so of course the signals for the passenger train called for the train to stop short of the cross-over. On approaching this point, we must rely on what the fireman said, because the engineer was killed. In this case, however, we have some more evidence than we had in the other case. We have the fireman's statement and also the evidence of the recording speed tape in the locomotive.

Q. The speed tape was operating on the locomotive involved?

A. Yes, and we have that to corroborate the fireman's version.

Q. It corroborates the fireman's statement to the company, is that right?

A. Yes. His statement was that they approached this signal, it was yellow, a caution signal, which called for reducing speed to 30 miles per hour and prepare to stop at the next signal. The engineer complied with the indication, reduced his speed, applied his brakes, was decelerating when it passed the signal; but on this portion of the railway, on account of having automatic train control, he moved a lever in the cab

of the locomotive that actuated that device so that he will not get an emergency application of the brakes; otherwise, if he did miss a signal, it would automatically make application of his emergency brakes, which he did not want.

Q. He forestalled that?

A. He forestalled it. The fireman said, "We did not get a whistle", which they should have got. If the signal was in a restricted position they should get an alarm, a whistle; they did not get it.

BY THE CHAIRMAN:

Q. Where would the whistle sound?

A. It sounds in the cab, so the men would hear it. The engineer is alleged to have said, "Did not get the blow".

BY MR. SINCLAIR:

Q. Who did he say that to?

A. To the fireman.

Q. This is what the fireman said.

A. I am repeating what the fireman said. The fireman says, "Well, that signal went to green". If it went to green they would not get the blow. The engineer apparently took his word for it. He released his brake, and shortly thereafter he accelerated from 60 miles an hour to 68 miles an hour, and shortly thereafter he saw the home signal at red, and the

train crossing over, and he could not cut down. He put on the air and emergency, but he could not stop, and he hit it at about 25 miles an hour.

Q. In your opinion what was the cause of that accident?

A. The engineer failed to observe his rule. His rule is to get down there, regardless.

Q. And what in your opinion did the fireman do?

A. I think he contributed to it; he led the man into it. But, the engineer should not have done it.

MR. LEWIS: Mr. Chairman, I wonder if my friend is finished with his discussion about these accidents?

MR. SINCLAIR: Yes.

MR. LEWIS: As these accidents happened on the New York Central, I would not think Mr. Borntrager would find it very difficult to obtain the files of these three accidents he referred to, or tell me what the files are or the names of the accidents, and I can get them through the firemen.

MR. SINCLAIR: We are trying to help Mr. Lewis all we can. Maybe he or some of his advisers, particularly those from Cleveland, could get that information through the Interstate Commerce Commission, which has a very good filing system, and my friend will have the

report of all these cases, thereby eliminating the work he seems to be placing on myself and some other people on my side.

THE CHAIRMAN: What about it, Mr. Lewis, is that satisfactory?

MR. LEWIS: If they are in the I.C.C. file, Mr. Chairman --

THE CHAIRMAN: Is it just a question of the names you are interested in?

MR. LEWIS: Either the names or the files.

MR. SINCLAIR: We will try to get him the names.

HON. MR. McLAURIN: Mr. Borntrager may know them.

BY MR. SINCLAIR:

Q. Do you know them, Mr. Borntrager?

A. I do not know the names, but I do know the accidents and the approximate dates. I know that all three are Interstate Commerce Commission investigation cases, so they are matters of public information.

MR. LEWIS: If I could have the names and dates that would enable me to find out what I want to know.

MR. SINCLAIR: I think you could find out without them.

MR. LEWIS: If my friend knows of any way of finding them without the names and dates,

I wish he would tell me.

MR. SINCLAIR: Just ask the man sitting beside you.

BY MR. SINCLAIR:

Q. Can you give us the dates of any of them?

A. I can give you the approximate dates.

Q. Then let us have the approximate dates.

A. The first one is April 19, 1940.

Q. Where?

A. That was at Little Falls, New York. The second one was the day after Labour Day, 1943, whatever day that was, at Canestota, New York. The third one was at Ripley, New York, and the date of that was I believe February 8, 1957.

Q. These are the three examples of untoward instances that you have recalled to support your view about what?

A. I believe that there must be conversation going on in the cab of the locomotives. If one man is by himself, unless he talks to himself there is no conversation; but when you get two there is bound to be some conversation; and when you have three, I am inclined to think there is more conversation. On top of that, I am inclined to believe that with respect to the boiler explosion at Canestota, when you have a division of

authority who knows what happens? I suppose an engineer hates to give up to the road foreman, and say, "Bill, we ought to pull the fire." The fireman knows he ought to pull the fire, but no one wants to give up and run up a white flag. I believe there is a certain amount of that; and there is also a loyalty of employees sometimes when there are several of them. No one wants to be the first to give up, but if you are there all alone you probably would do it on your own.

Q. Let us take the case of a train order or something of that nature - a very restrictive train order being overlooked by the engineer - would the fireman be of any assistance then?

A. He might be.

Q. Do you know of any case in your experience where the fireman -- let us take it on a passenger train, or if you prefer on a freight -- has taken over from the engineer when the engineer has made a mistake?

A. Well in my own experience I only knew it to happen one time.

Q. Has there been only one mistake in your experience made by an engineer?

A. I think there have been plenty of them; in addition to these three that I just gave here.

Q. Why did not the fireman take over in those other cases?

A. I think there would be a reluctance on the part of a fireman -- and I do not hold that against him altogether. All of us do that: Junior officers do not usually tell senior officers what to do and what not to do. I think that there is a natural tendency for a junior not to correct a senior, and if he does, it is pretty rough on him when he does it.

Q. Do you think if an engineer ran a red signal the fireman would not take some action?

A. He might, but I think he would wait to the last minute to do it - maybe when it was too late.

Q. If there were three men there - an engineer, fireman and a trainman - would the trainman be any different from the fireman, or would he in your view be the same?

A. There would not be a great deal of difference between them.

THE CHAIRMAN: Would this be a good place to adjourn until tomorrow, Mr. Sinclair?

MR. SINCLAIR: Yes, Mr. Chairman.

--- The Commission adjourned at 4.05 p.m. until 10.30 a.m., Tuesday, March 12, 1957.

